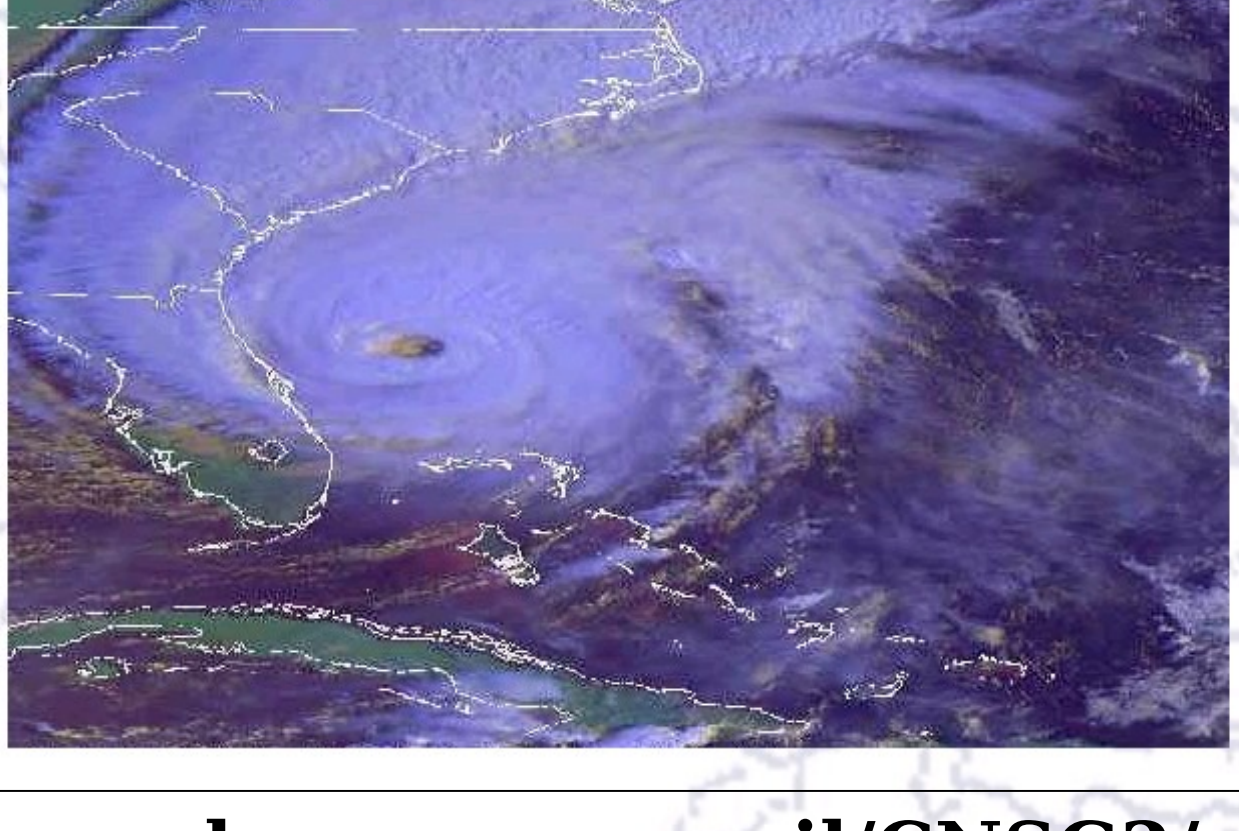
2004 Mayport Hurricane Conference

Weather

(METOC) Department

- Home
- Mayport 5 Day Forecast
- Mayport Hurricane Conference Briefs
- Destructive Weather Guidance/Instructions
- Condition of Readiness Status Board
- Sortie Condition Status Board
- Weather Links



http://www.cnsl.spear.navy.mil/CNSG2/weat

Schedule of Events

1300 -- Opening remarks by CAPT John Madden (CNSG

1315 -- 2004 Hurricane predictions and refresher (CNS

1345 -- COMNAVREGSE COR Setting/Attainment respo
and HURREX 2004 (NLMOF Jacksonville XO)

1415 -- Mayport sortie and responsibilities (CNSG2 ME

1400 -- MET/Fleet Liaison support (MET Jacksonville A

1430 -- Harbor readiness and sortie discussion (Harbor

1445 -- NAVSTA hurricane evacuation plan
(NAVSTA Mayport and Red Cross)

1500 -- Conference adjourned

CONTACTS:

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270-7354X155

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sdo@cnsg2.navy.(smil).mil
270-7354X191

Sign in sheet w/ EMAIL ADDR

ASK QUESTIONS!

Review HVY WX PREP MSG (released tomorrow, 30 APR)

Groups/DESRONS review OPG and provide feedback

All attainment reports made di to CNSG2 SDO

Expect 1 hurricane sortie mtg HURREX 04

Copy of this brief will be poste CNSG2 website

HURREX 03 Lessons Learned

Observation: Lack of access to current destructive weather references.

-Outdated NAVSTA/CNSRE instructions.

-No central location to access information.

Action Taken: -SOPAMYPT INST 5440.3G revised. Newly revised destructive weather plan is now CH 6 of Manual of the SOPA Mayport.

-NAVLANTMETOCFAC Jacksonville and CNSG2 maintain up-to-date websites with current destructive weather references.

Observation: Communications problems experienced throughout HURREX 03:

-Fleet units unaware of immediate action traffic.

-Delay in receipt of MSG traffic pertaining to SORTIE.

Action Taken: -Group email address created to notify units before

2004 Hurricane Season Preview

(Dr Gray, Univ. of CO, forecast updated 02 April, 2004)

- **1 June Thru 30 November**
- **Above Average Year Predicted**
- **14 Named Storms**
- **8 Hurricanes**
- **3 Major Hurricanes (CAT3-5)**
- **Higher than average chance of CAT 3-5 storm affecting US East Coast (52%) and GOMEX Coast (40%)**

Stages of Development

- **Tropical Disturbance**

  Tropical wave (area of embedded T-storms) or area of Low pressure with high probability of tropical cyclone formation

- **Tropical Depression**

  Cyclonic circulation and sustained winds up to 33 kts

- **Tropical Storm (becomes named storm)**

  Sustained winds 34 to 63 kts

- **Hurricane**

  Sustained winds 64 kts or greater

Hurricane Categories

Category 1 (Minimal) -
Winds 64 to 82 kts (74 to 95 mph). Storm surge 4 to 5 ft
No real damage to building Structures.

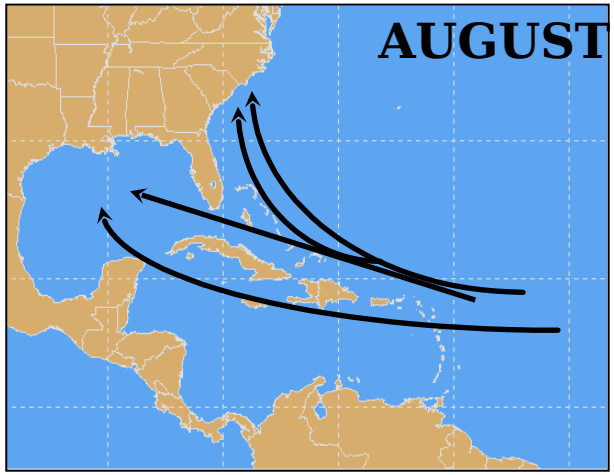
Category 2 (Moderate) -
Winds 83 to 95 kts (96 to 110 mph). Storm surge 6 to 8 ft.
Minor damage to structures, poorly constructed buildings major damage.

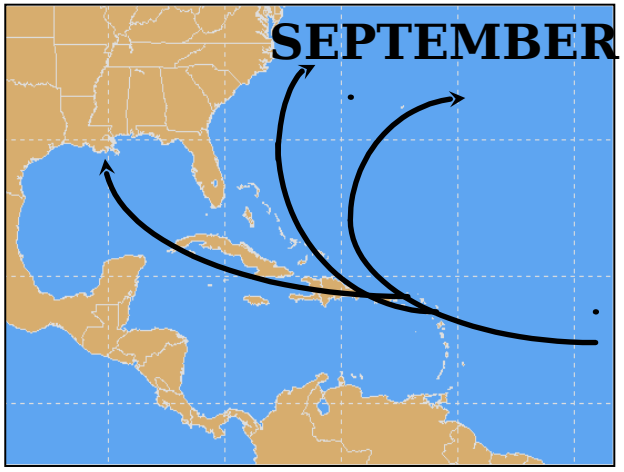
Category 3 (Extensive) -
Winds 96 to 113 kts (111 to 130 mph). Storm surge 9 to 12 ft.
Major damage to structures, poorly constructed building destroyed.

Category 4 (Extreme) -
Winds 114 to 135 knots (114 to 135 mph). Storm surge 13 to 18 ft.
Extensive roofing and window damage. Mobile home destruction.

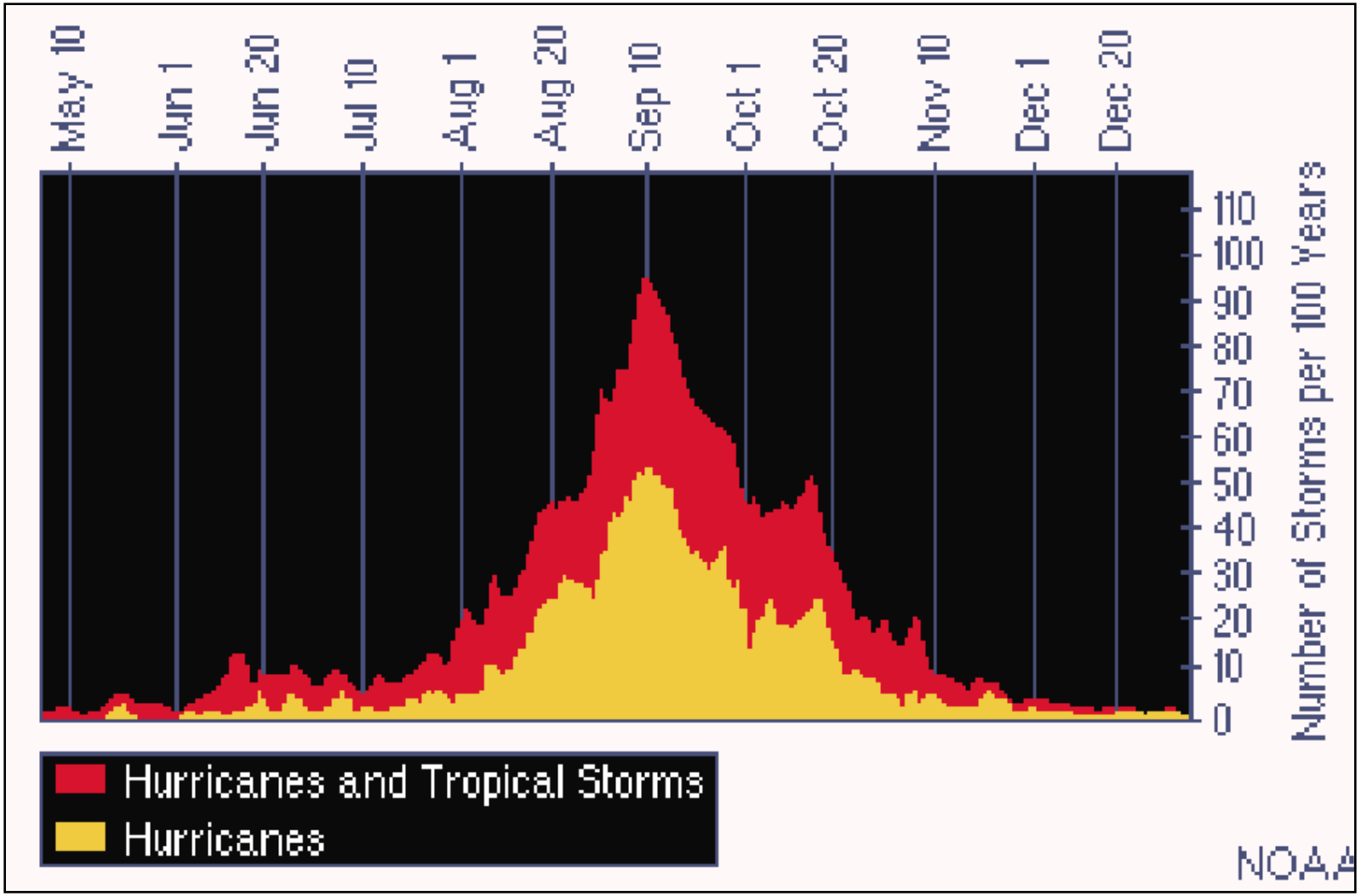
Category 5 (Catastrophic) -
Winds 135+ kts (155+ mph). Storm surge 18+ ft.
Complete roof failure, severe window door damage & some buildings fail.

Hurricane Tracks

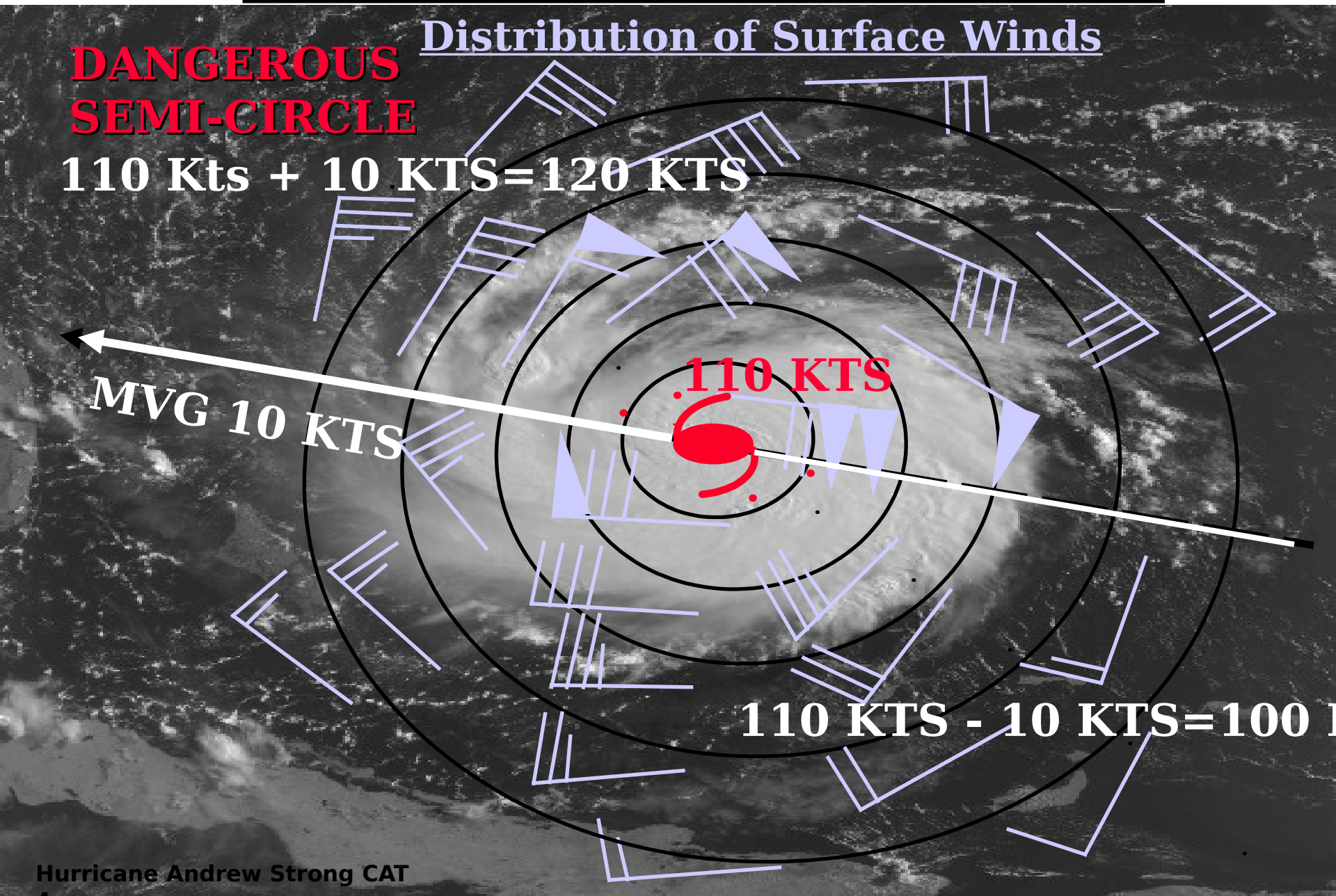




Historical Seasonal Trends

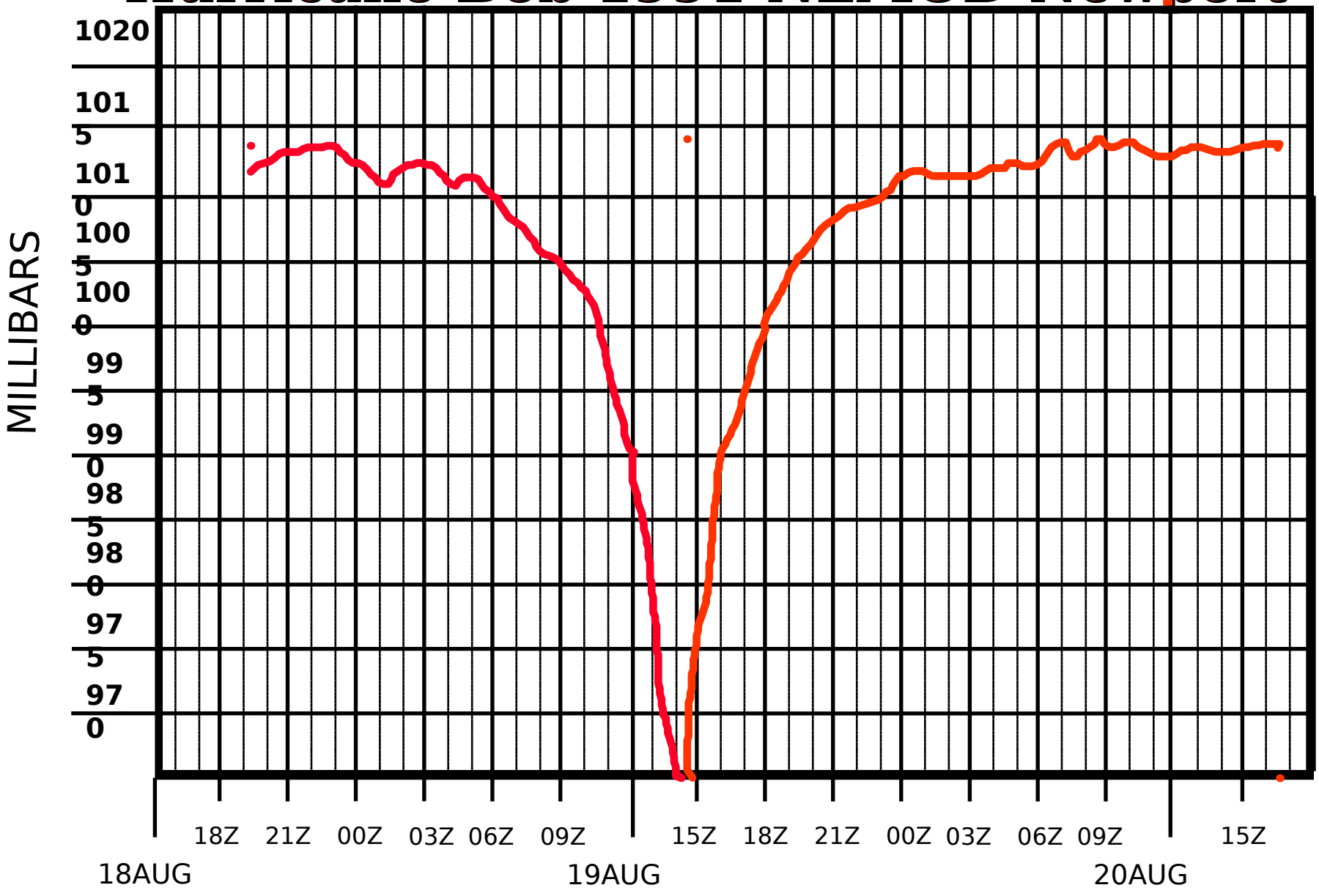


Storm Wind Structure



Barograph Trace

Hurricane Bob 1991 NLMOD Newport



Primary Threat - Storm Surge

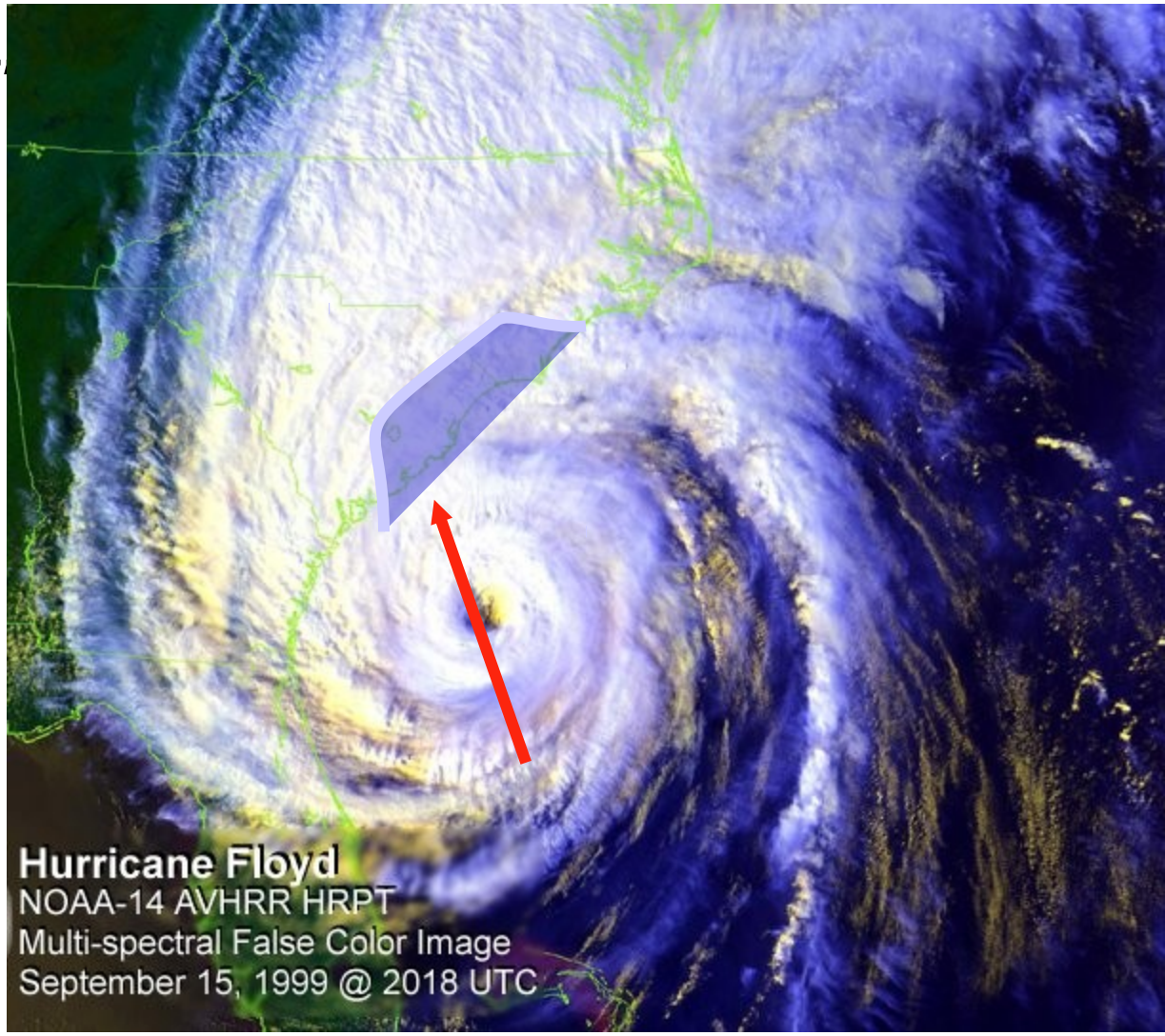
"WALL OF WATER"

Abnormal rise of the sea in advance/with the cyclone.

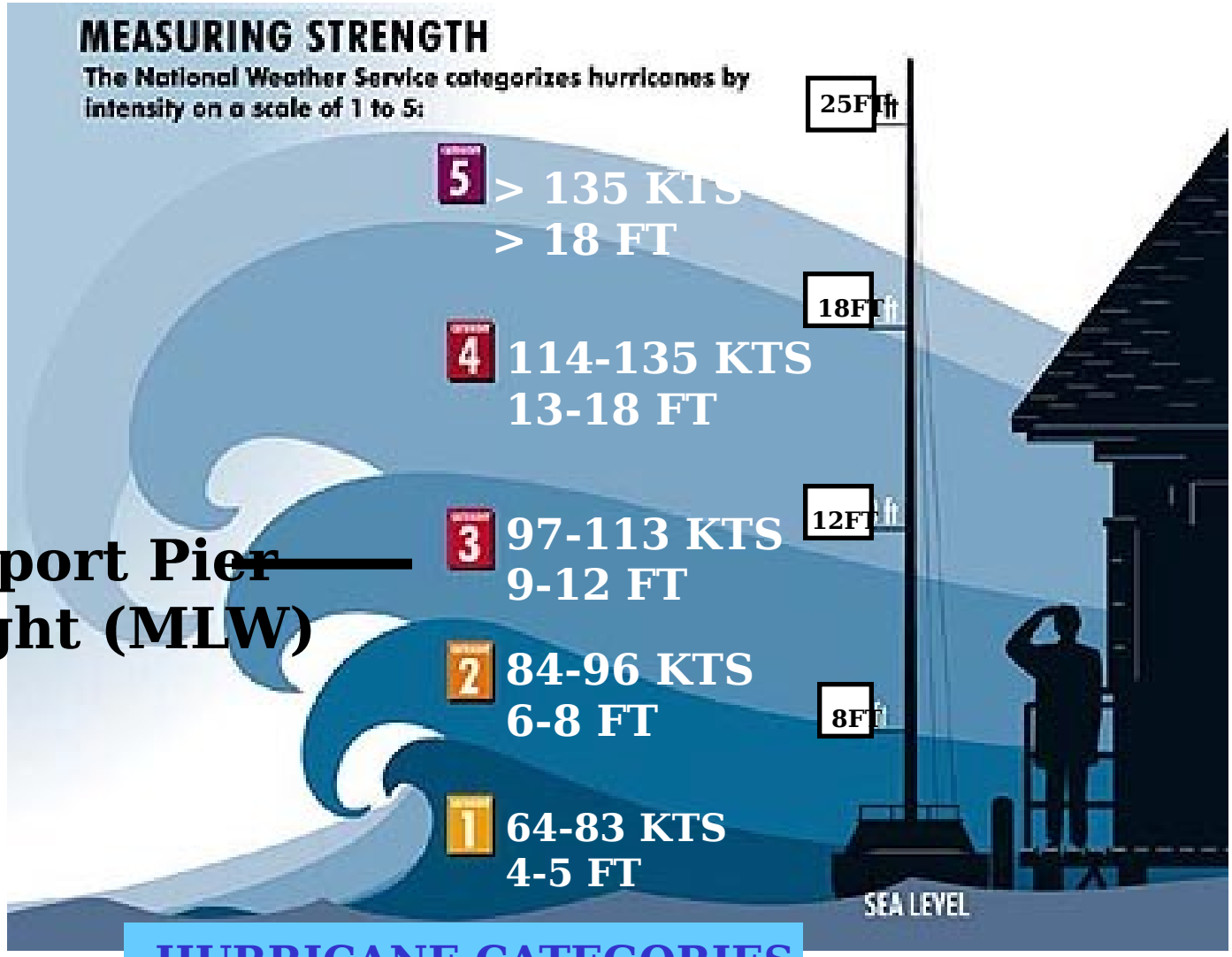
Caused by:

Low pressure at center.

Winds in right front quadrant



Storm Surge
(SAFFIR-SIMPSON SCALE)



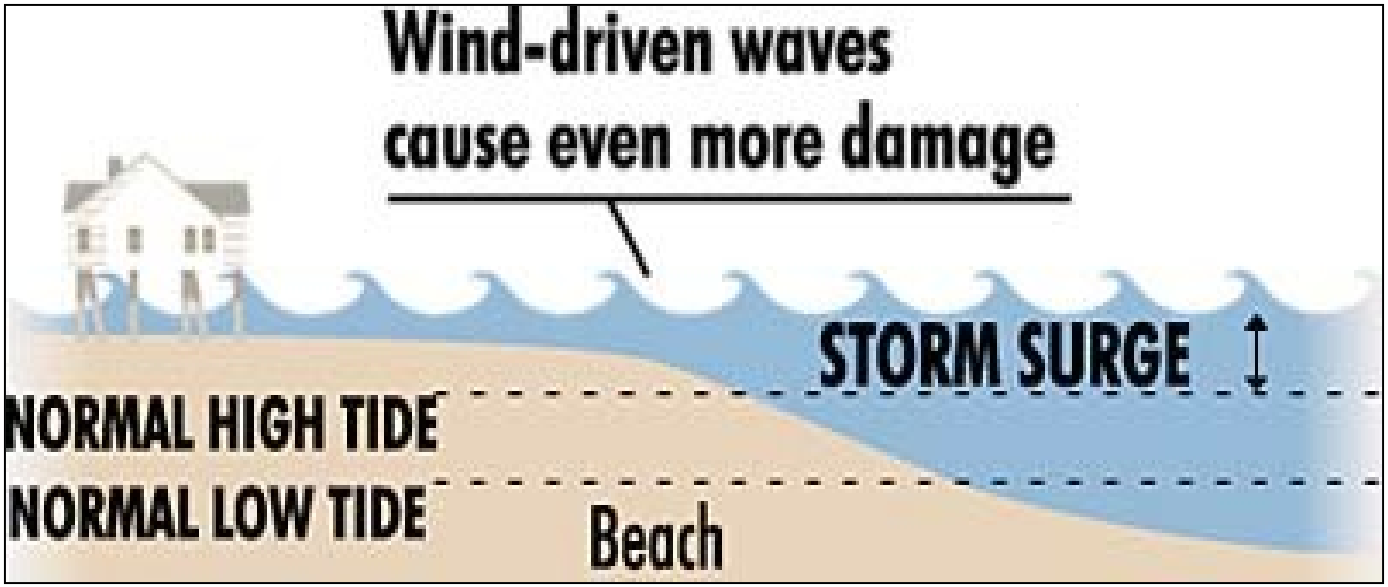
Mayport Pier Height (MLW)

HURRICANE CATEGORIES

Storm Surge + Tidal & Wind In

Example: CAT IV Hurricane (114-135 KTS & 13 to 1

Surge (15 FT) + High Tide (4 FT) + Wind Wave (6 FT) = 25 FT



Additional Weather Phenome

- **TORNADOES**

Embedded in T-storms normal
with landfall of Tropical Cyclo

- **WINDS**

Flying debris/missile hazards
Total destruction of poor constructed structu

- **TORRENTIAL RAINS/FLOO**

Excess of 6 inches in less than 8 hrs p

2004 Hurricane Names

Alex	Bonnie		
Charley			
Danielle	Earl		
Frances			
Gaston	Hermine	Ivan	
Jeanne	Karl	Lisa	
Matthew	Nicole	Otto	
Paula	Richard		

NS Mayport Threat

(Historically)

- **Threat return period: 12 yrs**
- **Threat occurrence: July - October (Highest in Sep**
- **Mean Storm SOA: 10KTS**
- **Highest recorded sustained wind speed: N@ 65kts**
- **Predominant wind direction based on climatology:**
- **Primary Threat: Storm Surge**
- **Secondary Threat: Associated Weather (Wind, Hea**

**** Last Sortie recorded: Hurricane Floyd, Sept. 199**

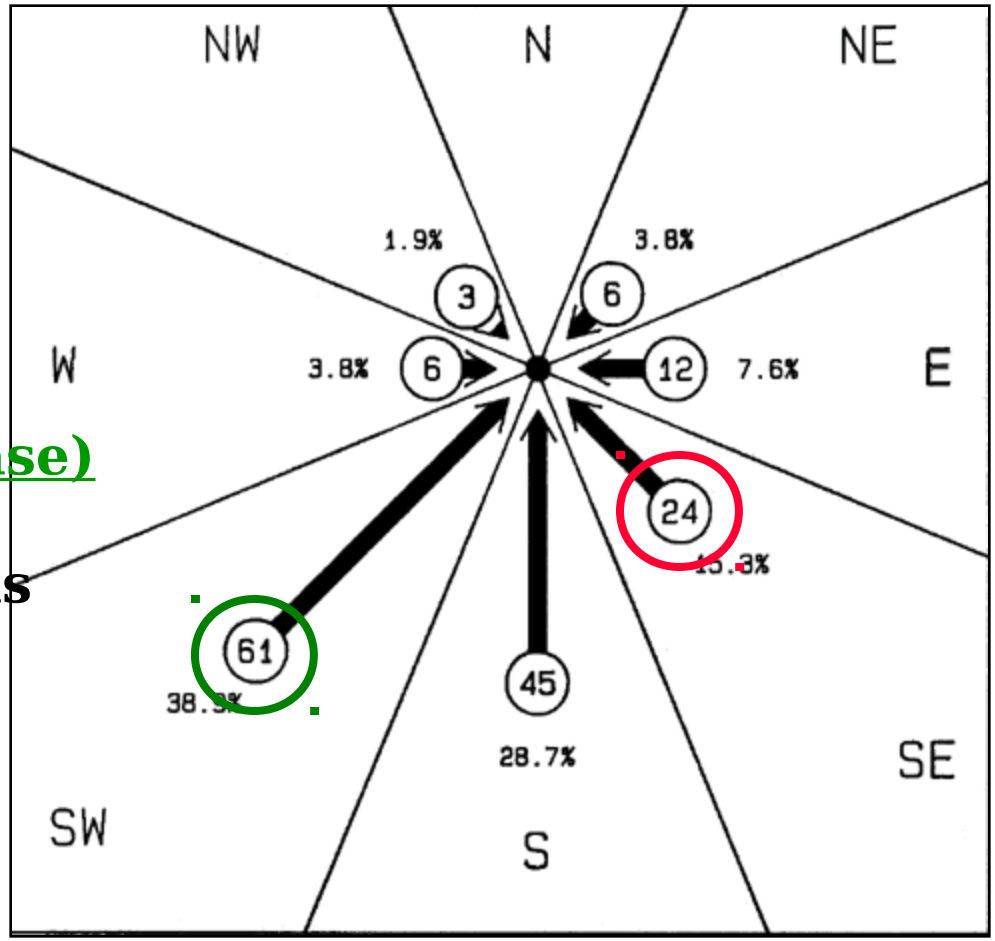
Hurricane Havens Handbook

"…Mayport Basin and the Port of Jacksonville are not to be considered a haven during hurricane conditions…"

- **Low topography and no wind break.**
- **Piers are 11-12 ft above mean low water. (CAT 2-3)**
- **Close proximity to channel entrance from open ocean; Susceptible to wave action.**
- **Little reduction of surge/swell penetration through and over jetty will occur.**
- **Recommends all capable ships evade at sea.**

Historical Storm Track Direction

(NS Mayport)



S - W (Best Case)

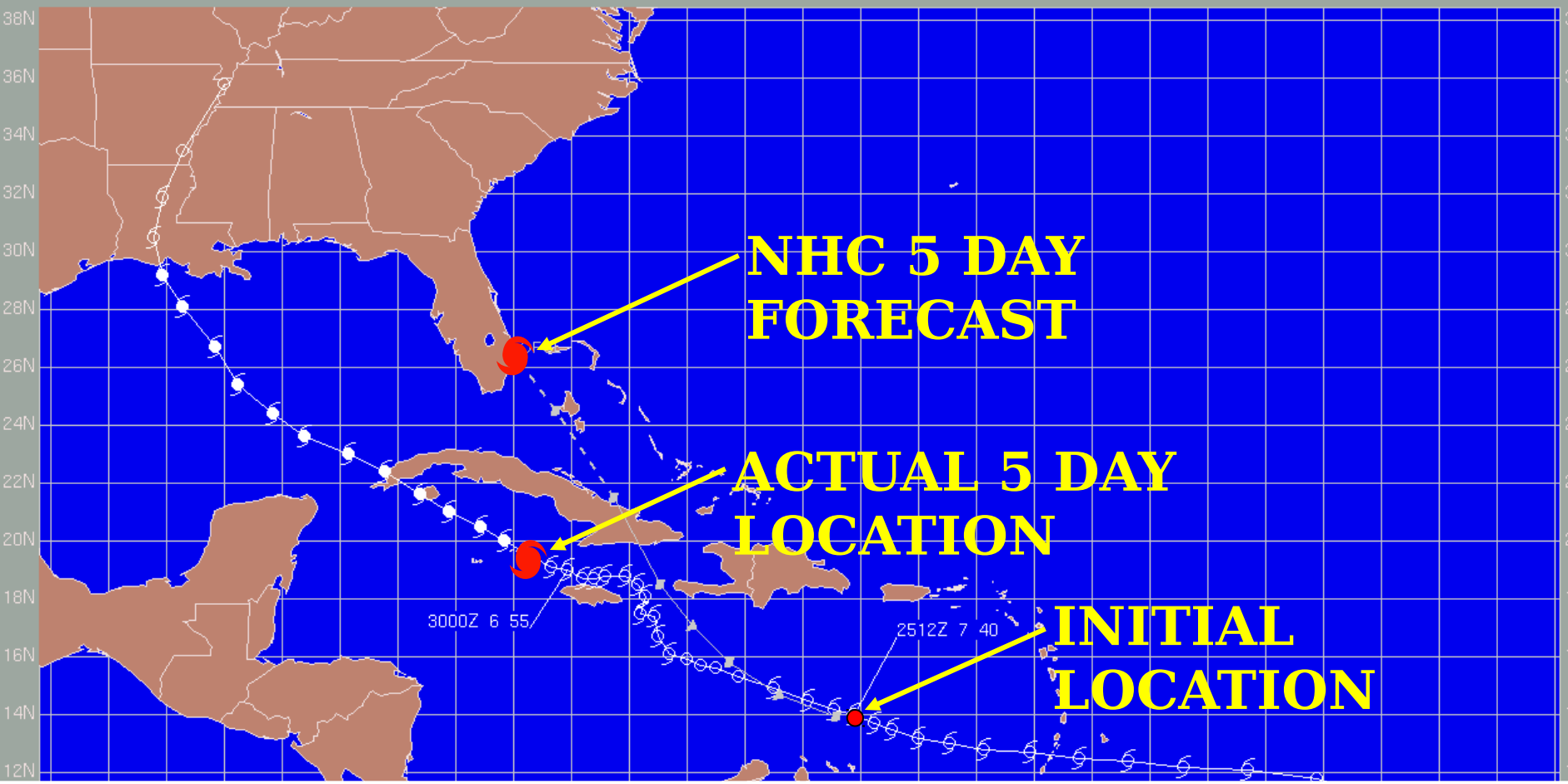
- **69%**
- **Strong Winds possible**

E - SE (Worst C

- **23%**
- **Worst Storm Surge**
- **Strong Winds possible**

157 tropical storms passing within 180 nmi of Mayport during the period 1886-1998

5 Day Forecast Track Error Considera



Example: LILI, 25 Sept 2002, 1200 UTC – 5 Day Track Errors of about 420 Nautical Miles

Compliments of the National Hurricane Center

POC: LT Ted Dorics
270-7354 EXT. 113
tdorics@cnsg2.navy.mil

NAVAL ATLANTIC METEOROLOGY AND OCEANOGRAPHY FACILITY JACKSONVILLE

COMMANDING OFFICER

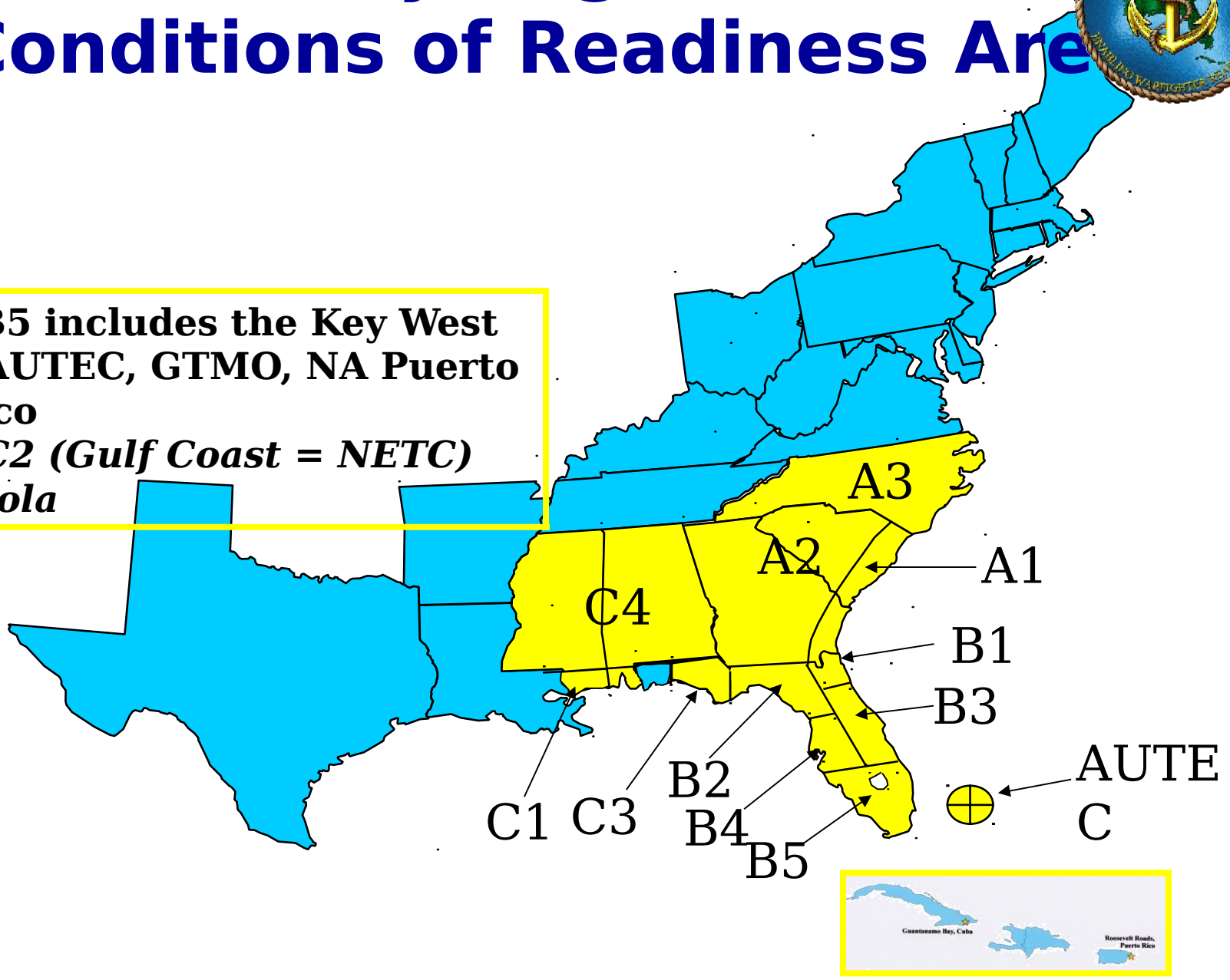
CDR JOHN COUSINS

HQ Jacksonville and Detachments

Aviation and Destructive Weather

Navy Region SE Conditions of Readiness Are

- **B5 includes the Key West**
- **AUTEC, GTMO, NA Puerto Rico**
- ***C2 (Gulf Coast = NETC) Pcola***



Destructive Weather Plan
CNRSEINST 3140.1G (xx Apr 2004)

- Definitions:
  - Conditions of Readiness: COR 1 thru COR 5
  - Weather Warnings – DOD versus NWS
  - Hurricane Category
  - CNRSE Alpha, Bravo, Charlie Areas
- Authority for setting CORs:
  - Alpha, Bravo, & Charlie 1,3,4 -CO, NLMOF Jacksonville, FL
  - Puerto Rico & AUTEC -CO, NLMOF Jacksonville, FL
  - GTMO -CO, Guantanamo Bay, CU
- Designates ***Reporting Commands*** (17)
- Reporting Commands provide Hurricane POC avail

Shore Conditions of Readiness

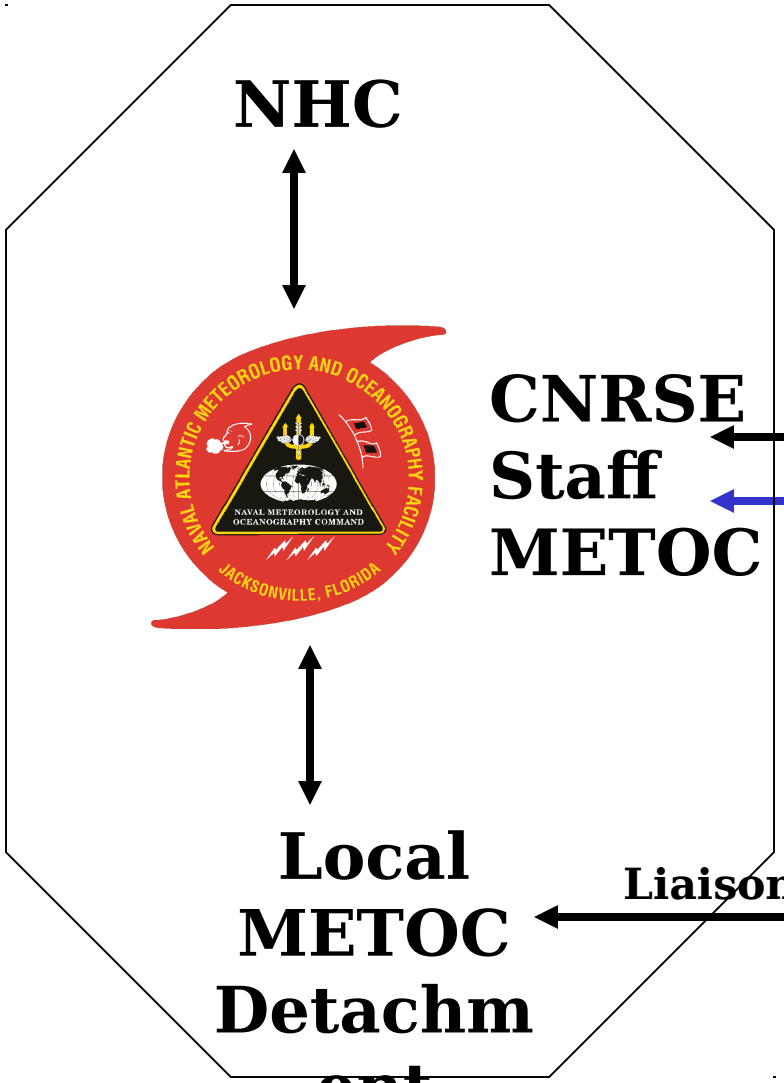
(Time to onset of winds ≥ 50 kts)

- **COR 5: 01 JUN – 30 NOV**
- **COR 4: 72 hrs**
- **COR 3: 48 hrs**
- **COR 2: 24 hrs**
- **COR 1: 12 hrs**

Tropical Wind Warning issued if winds ≥ 34 kts but < 50 kts)

hore Hurricane Suppo

Conditions of Readiness



Liaison

COR

Naval Air Station

Naval Base

Liaison

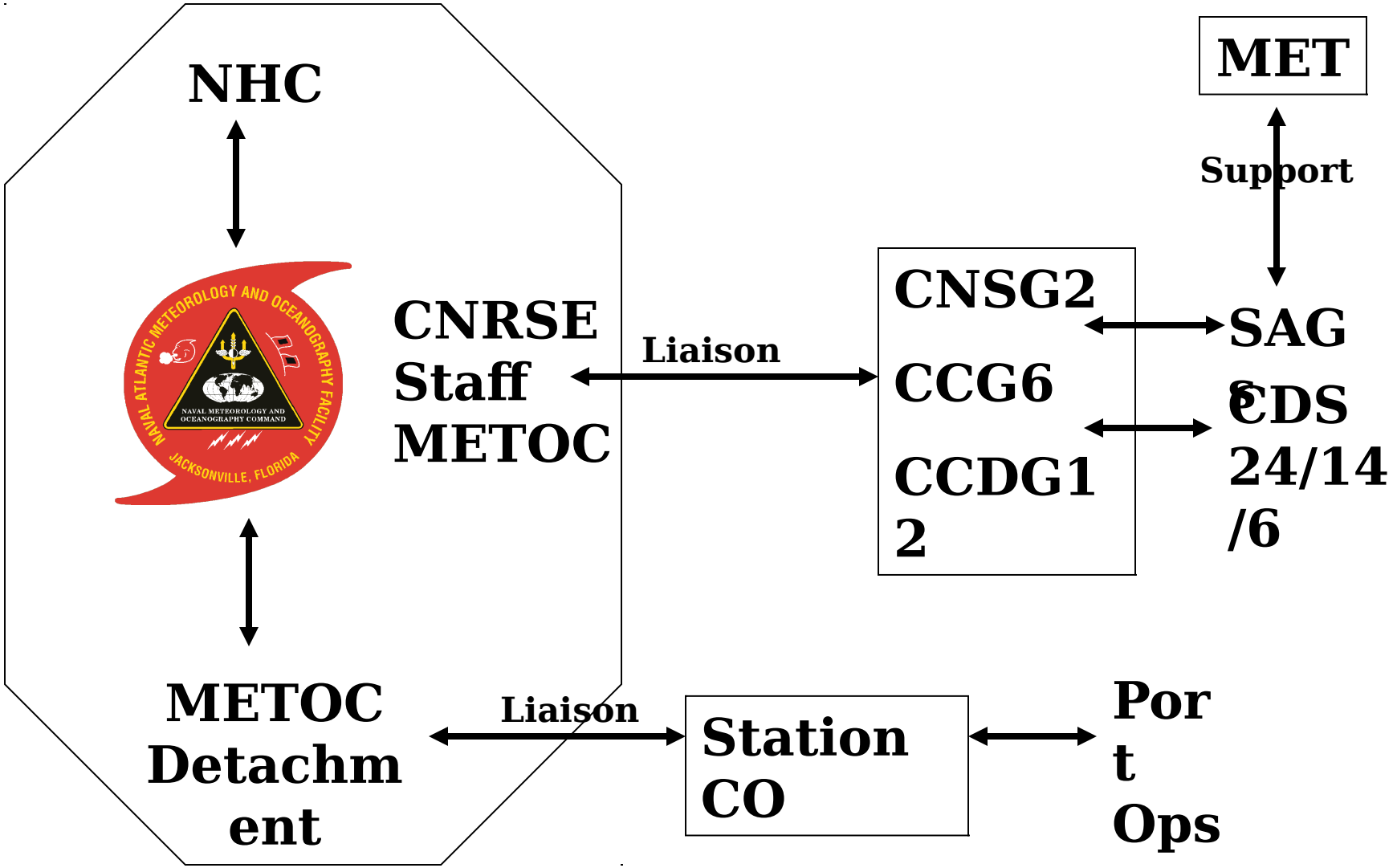
CO

DPO

CDO

Fleet Hurricane Suppo

Sortie Conditions



Safety and Resource Protection

24 / 7 Eye on the Fleet - Destructive Weath

- Tropical Cyclones
- Storms and Icing
- North Wall Effect

Hazard Avoidance Services

- Optimum Track Ship Routing (OTSR)
- High Wind and Seas Warnings
- Route Weather Forecasts (WEAX)

Considerations

- **Service Enhancement - Timely receipt of MOVREPs, Accurate observations, Specific maximum ship limits (wind and sea heights).**
- **Coordinated evasion recommendations with ships and staffs.**
- **Independent advisory service.**

https://jax.weather.navy.mil

Naval Atlantic Meteorology And Oceanography Facility Jacksonville, Florida

Naval Meteorology and Oceanography
Operational Support Web

Current Local Weather

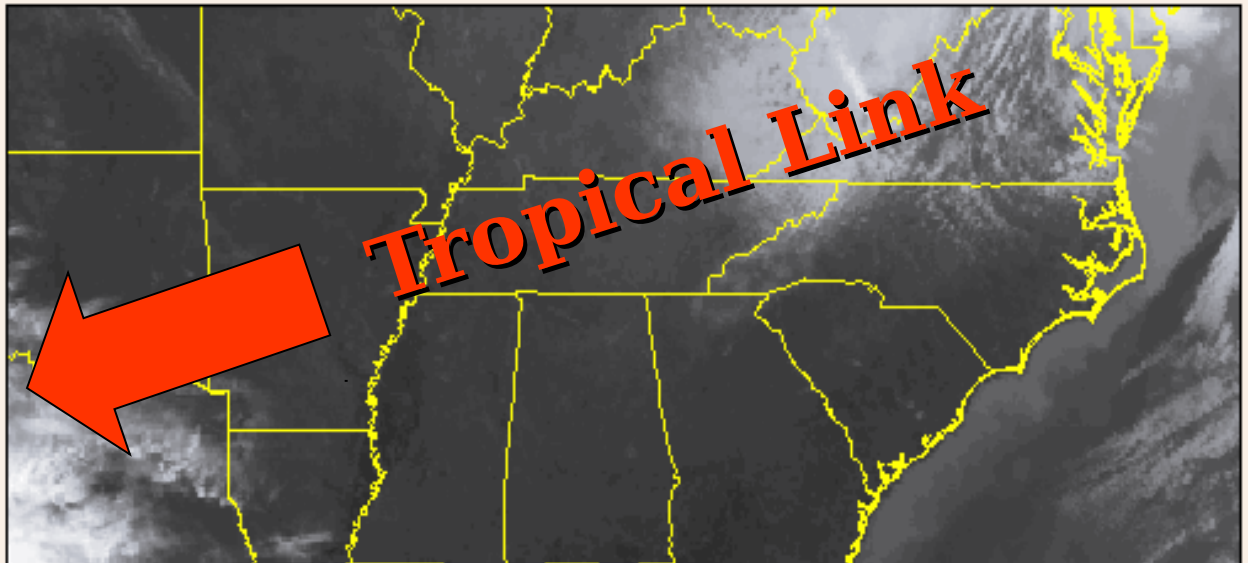
5-Day Local Forecast

Tropical Information

Tropical Information Page

METOC/Weather

Current Regional Satellite Image



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NAVAL ATLANTIC METEOROLOGY AND OCEANOGRAPHY FACILITY
NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND
JACKSONVILLE, FLORIDA

F Products and Services

- Northeast Florida Local Interest
- Horizontal Weather Depiction
- Tropical Weather Page
- COMNAVREG SE Flag Brief
- GOES Satellite Images/Loops
- NWS NEXRAD Data
- Lightning Data
- Surface Analysis (DIFAX Images)
- NLMOF Climatology Products

External Product Links and Sites

- NOTAMs Retrieval
- NOAA Links
- Air Force Weather (AFWA)

NLMOF Tropical Weather Products

COMNAVREG SE Tropical Storm Information

Current Storm Track (Graphic, Text, Discussion, Strike Probability)
Conditions Of Readiness Tracker Page
COMNAVREG SE Warning Area Graphic
COMNAVREG SE COR Attainment Reporting Form **
NLMOF Hurricane Quick Reference Guide
Hurricane Exercise (HURREX) 2003 Letter of Instruction
COMNAVREG SE Destructive Weather Plan 3140.1F (PDF File)

Area Hurricane Briefs

NLMOF 2003 Hurricane Preparedness Brief (PowerPoint)
NLMOF Mobile Team Mayport Hurricane Preparedness Brief (PowerPoint)
NLMOF's Mayport Hurricane Planning Conference Brief

Other Resource Links

FEMA Home Page
National Hurricane Center Tropical Page
NLMOF Tropical Outlook
COMLANTFLT Standardization Message

** This link is for the commands listed in CNRSEINST3140.1F as attainment reporting commands.

CNRSE COR Tracker Page

CNRSE Areas	Current COR	Time Ordered	Time Attained
ALPHA 1 (Coastal Georgia & South Carolina) WEPSTA Charleston			
ALPHA 2 (Inland Georgia & South Carolina) MCLB Albany, NAS Atlanta, NAVSCSOL Atlanta			
ALPHA 3 (North Carolina)			
BRAVO 1 (Northeast Florida Tri-Base Area) NAS Jacksonville, NS mayport, NSB Kings Bay, Blount Island			
BRAVO 2 (Northwest Florida East of 085ºW)			
BRAVO 3 (East Central Florida) NOTU Cape Canaveral, MSCO Port Canaveral			
BRAVO 4 (West Central Florida)			
BRAVO 5 (South Florida)			
NAS Key West			
CHARLIE 1 (Coastal Mississippi)			

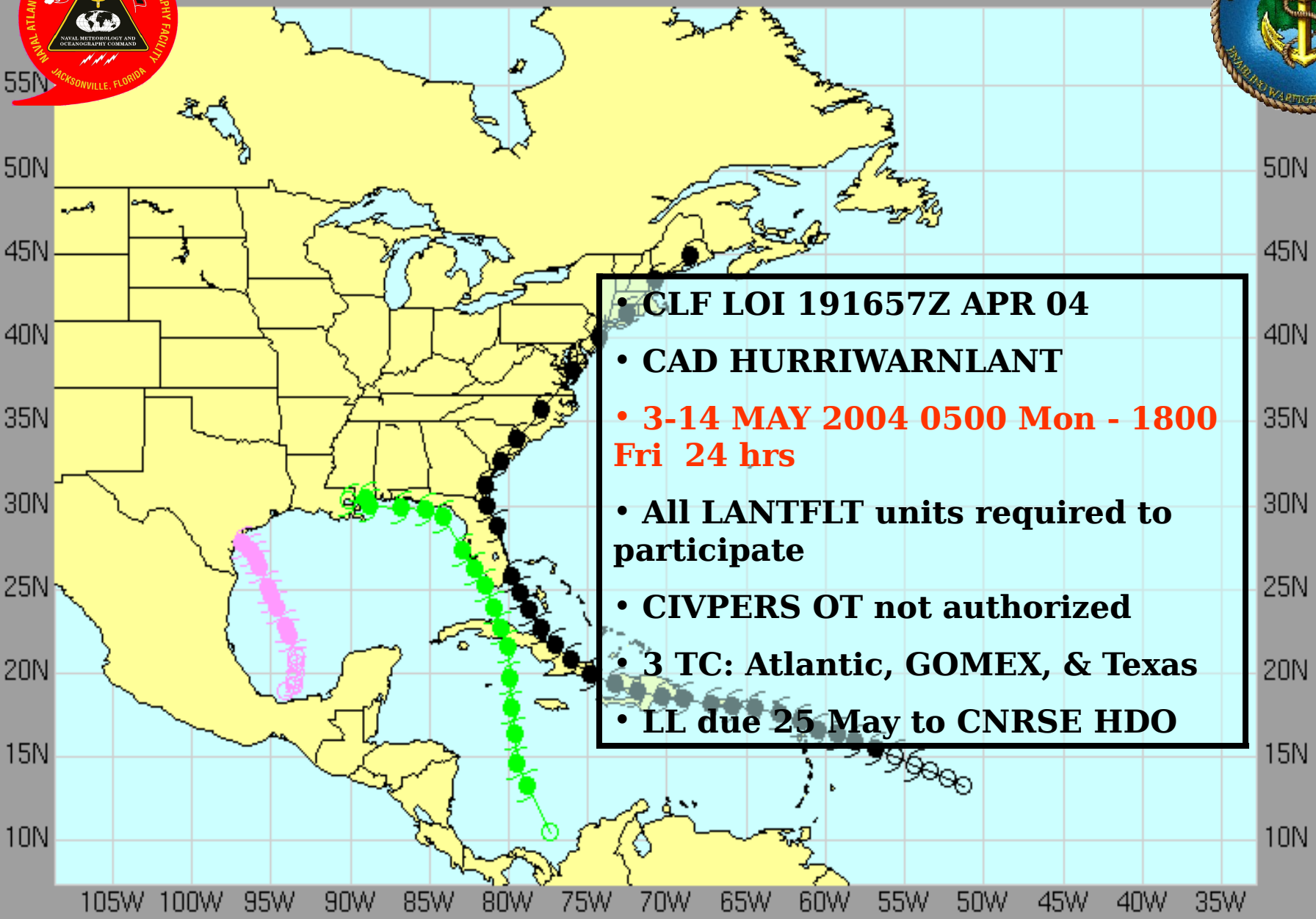
Click on DTG link to view latest DMS message

Sortie Condition Tracker Page

NAS Key West			
CHARLIE 1 (Coastal Mississippi) Stennis Space Center, Naval Construction Battalion Gulfport NS Pascagoula, SUPSHIP Pascagoula			
CHARLIE 2: NETC Directed *(Click here for NETC COR Settings)* Coastal Alabama to Walton County, FL Line			
CHARLIE 3 (Walton Co. FL Line to 085°W) Coastal Systems Station, Panama City			
CHARLIE 4: NETC Directed *(Click here for NETC COR Settings)* Inland Mississippi and Alabama			
Andros Island (AUTEC)			
NS Guantanamo Bay, CU			
NS Roosevelt Roads, PR			

Ships Homeports	Current COR	COR Time
MAYPORT SHIPS (SOPA Mayport)		
NORFOLK SHIPS (SOPA Norfolk)		
PASCAGOULA SHIPS (SOPA Pascagoula)		

HURREX 2004



- **CLF LOI 191657Z APR 04**
- **CAD HURRIWARNLANT**
- **3-14 MAY 2004 0500 Mon - 1800 Fri 24 hrs**
- **All LANTFLT units required to participate**
- **CIVPERS OT not authorized**
- **3 TC: Atlantic, GOMEX, & Texas**
- **LL due 25 May to CNRSE HDO**

Concluding Remark

- Shore Hurricane Support (Coordinate and Order CORs)
- Fleet Hurricane Support (Coordinate and Support)
- HURREX 04, 3 – 14 May

Resolve multi-source Data and provide Information, Recommendations, Coordination, and COR Orders to optimize support for Shore, Sortie, At-Sea operations.

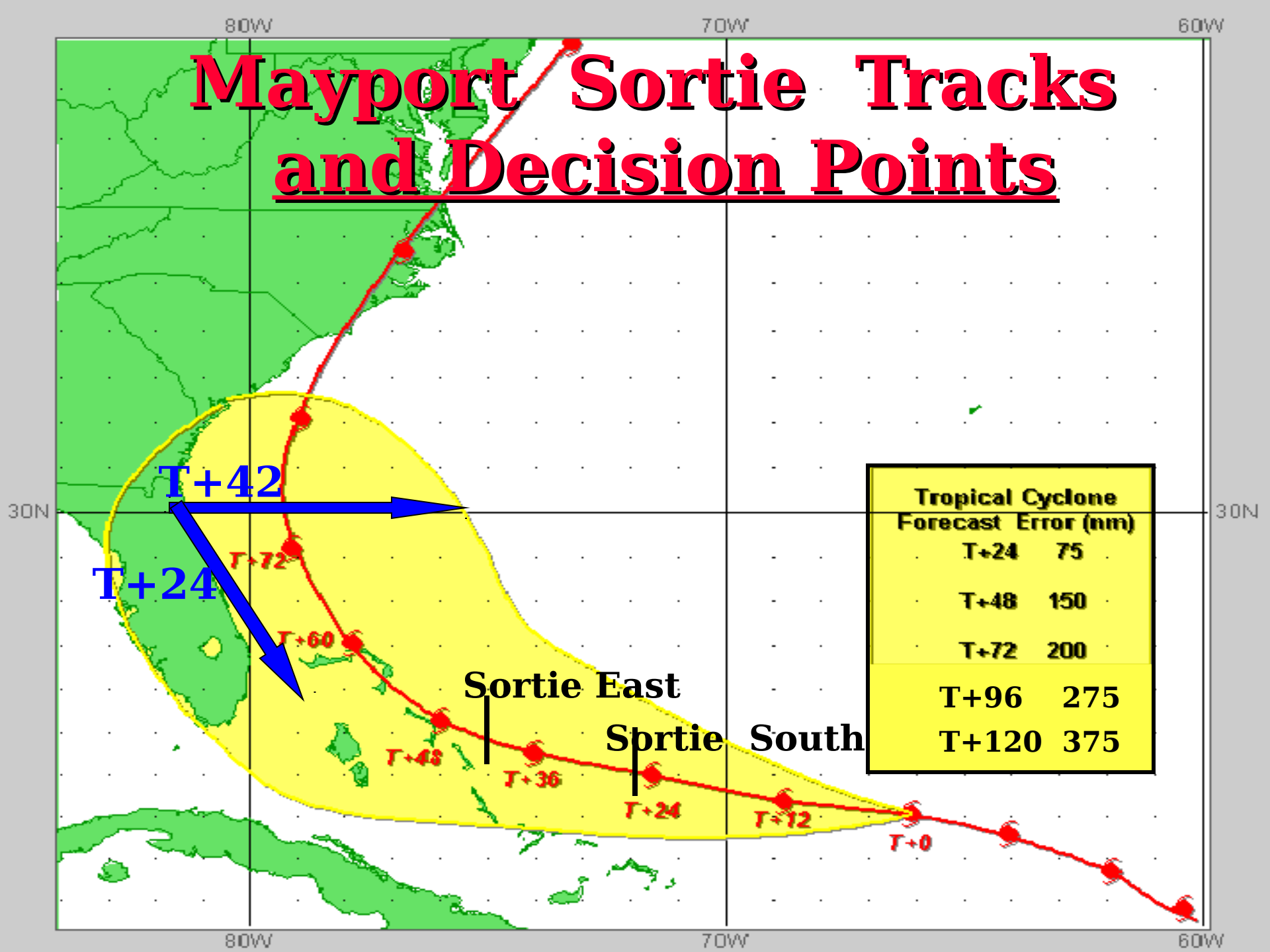
Questions?

Mayport Sortie

Sortie Conditions

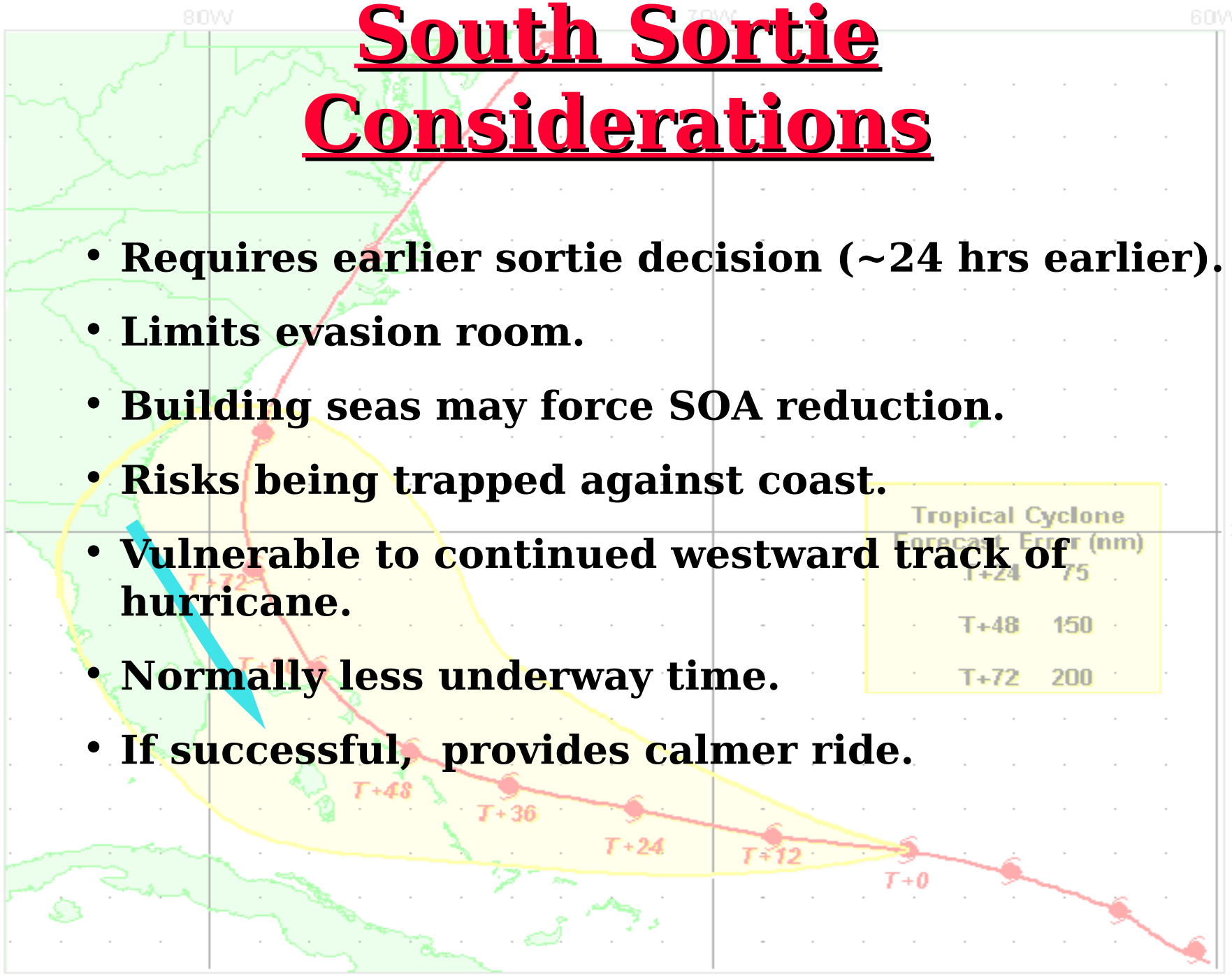
- **Set by CNSG2 (with SOPA Mayport inp**
- **Sortie C**
    1. **Prepare to sortie within 48 hrs.**
    2. **Sortie commencement time will be i SOPA message setting Sortie C**
- **Sortie B**
    1. **Sortie expected WITHIN 24 HRS.**
- **Sortie A** **(36-48 Hrs prior to Hazardous Winds &**
    1. **Commence Sortie to avoid heavy weat**

Reference: SOPAMYPTINST 5440.3G CH-6 (10 Feb 0


80W
70W
60W
30N
Mayport Sortie Tracks
and Decision Points
T+42
T+24
T+72
T+60
T+48
T+36
T+24
T+12
T+0
Sortie East
Sprtie South
Tropical Cyclone
Forecast Error (nm)
T+24 75
T+48 150
T+72 200
T+96 275
T+120 375

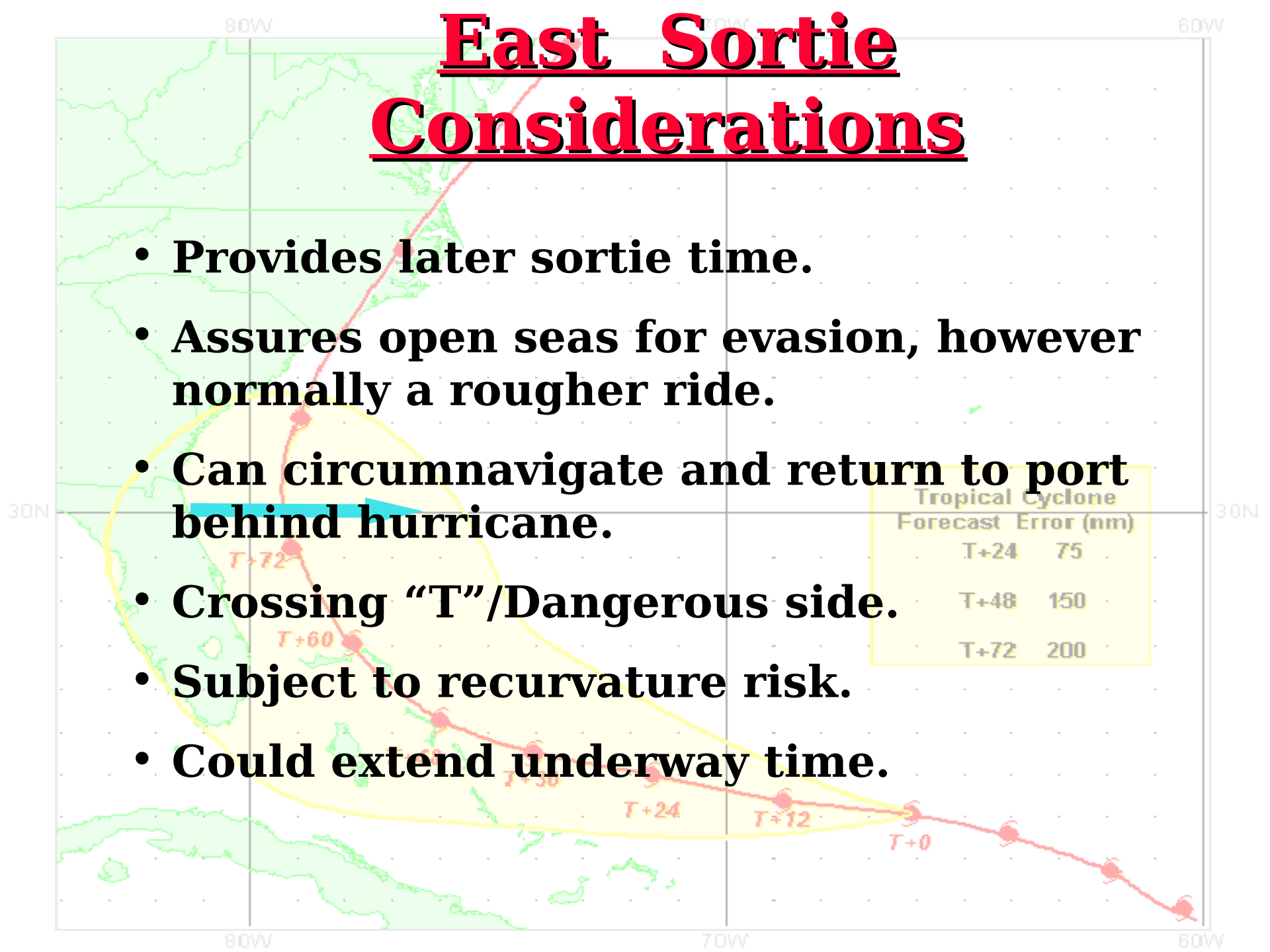
South Sortie Considerations

- Requires earlier sortie decision (~24 hrs earlier).
- Limits evasion room.
- Building seas may force SOA reduction.
- Risks being trapped against coast.
- Vulnerable to continued westward track of hurricane.
- Normally less underway time.
- If successful, provides calmer ride.



East Sortie Considerations

- Provides later sortie time.
- Assures open seas for evasion, however normally a rougher ride.
- Can circumnavigate and return to port behind hurricane.
- Crossing “T”/Dangerous side.
- Subject to recurvature risk.
- Could extend underway time.



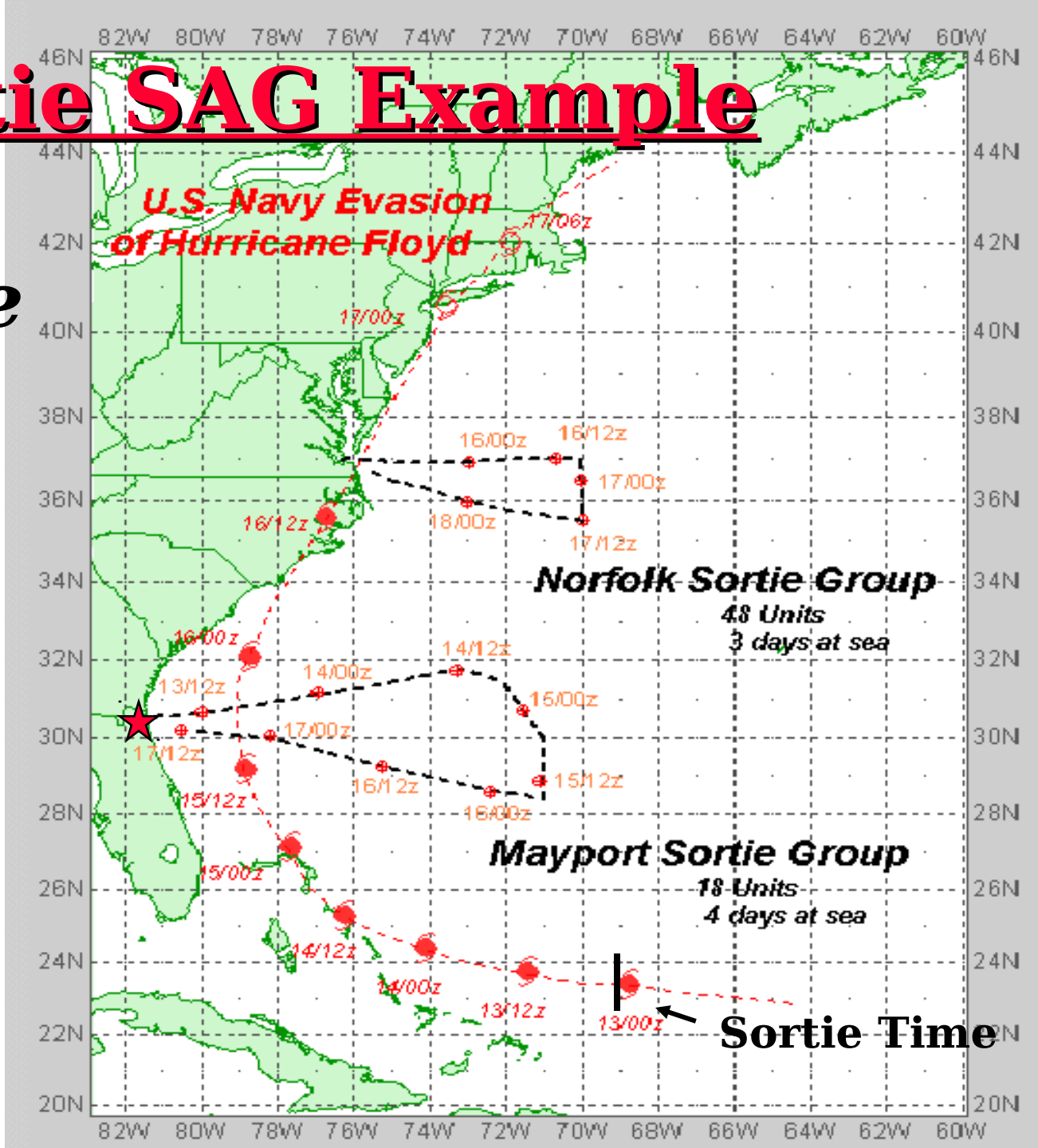
Sortie SAG Example

Hurricane Floyd

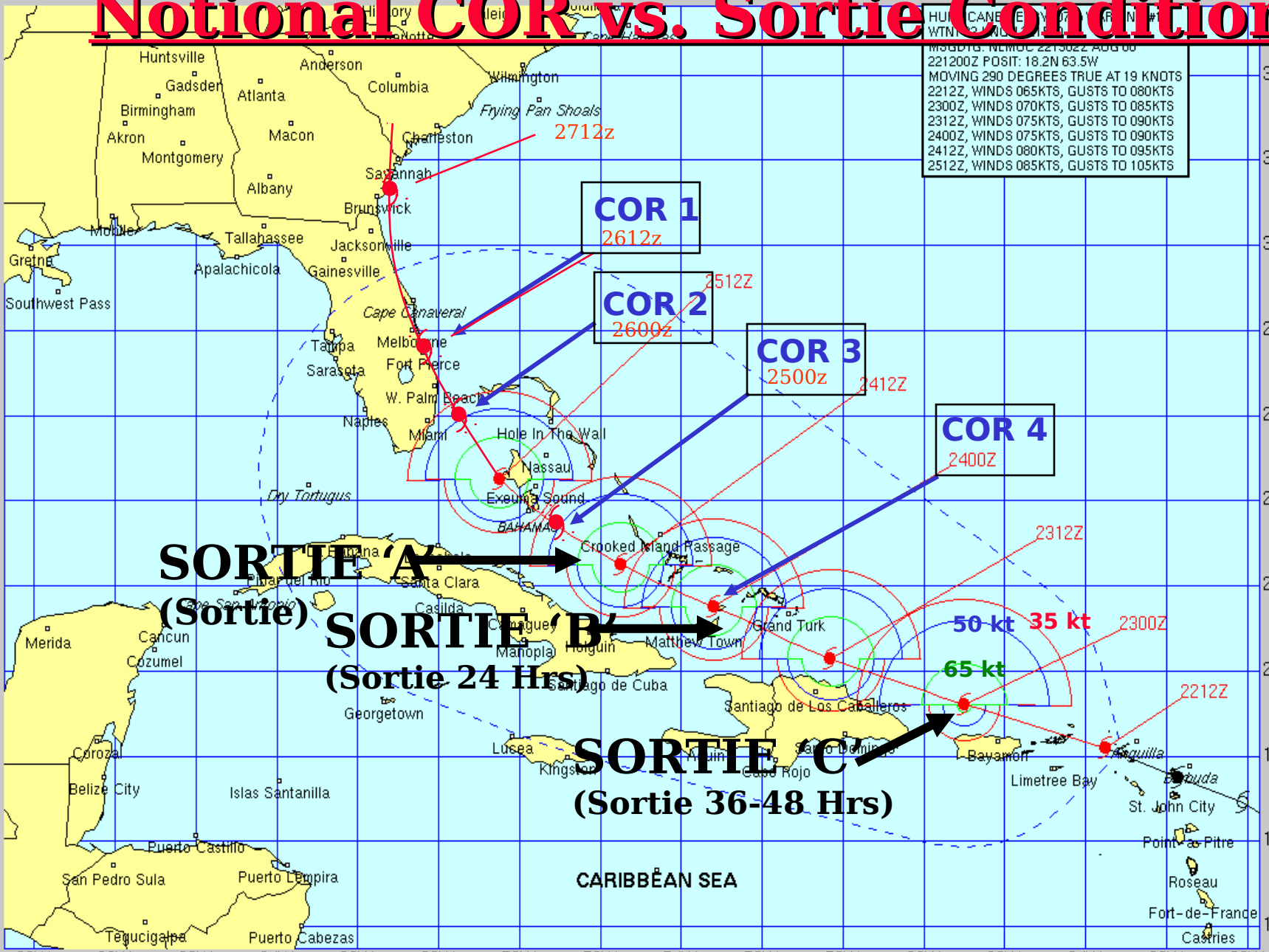
(Days at sea)

Mayport 4

Norfolk 3



Notional COR vs. Sortie Condition Gr



Sortie Decision: Go / No G

- Most recent hurricane warning track vs. Historical track
- Forecasted sustained winds of ≥ 50 kts. Recommend Sortie.
- Current and forecasted Harbor conditions prior and during s
- Ship characteristics (size, weather thresholds, etc.) & berth
- Flooding: Pier heights 11 ft (Delta) to 12 ft (Bravo/Charlie) a
  (CAT 1 storm plus 4-5 Ft tide could flood piers)
- High cost of sortie vs. low threat frequency of direct hit
- Evasion 36 - 48 hours prior to hazardous winds & seas to avo
- NLMOF/Staff METOC/OTSR provide data and recommendations to aid in decision. OTSR will provide guidance to Sortie SAG

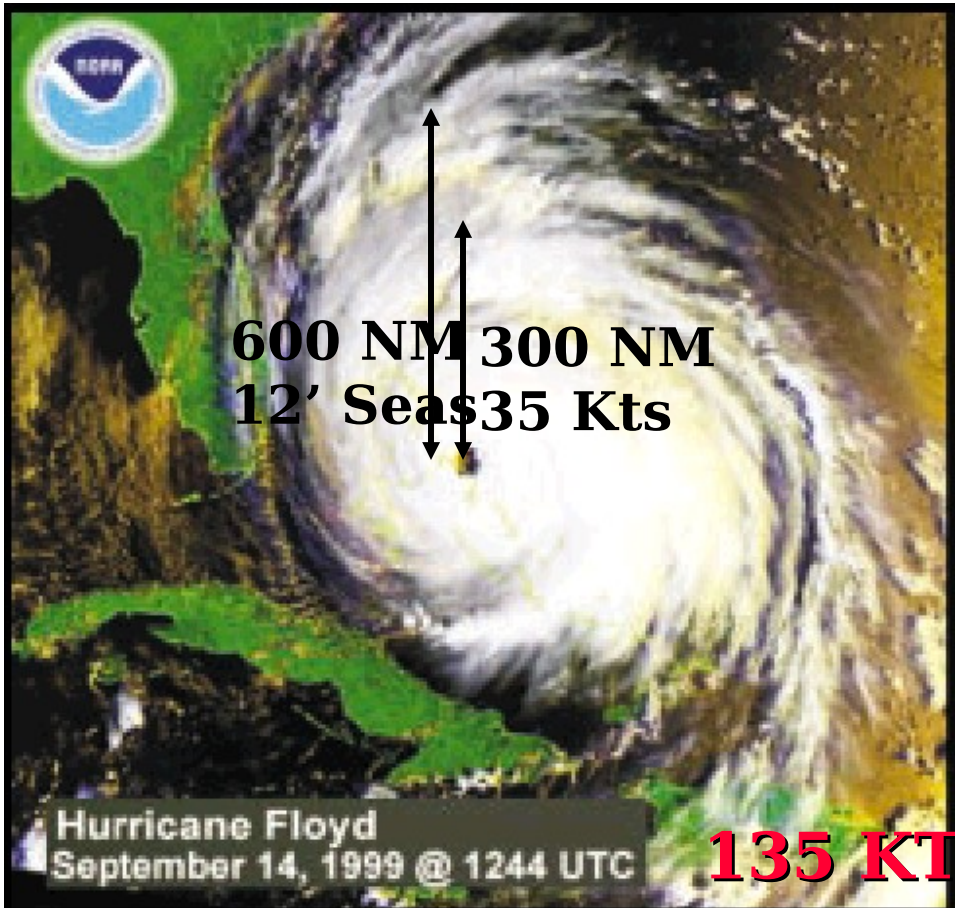
CNSG2 / SOPA Mayport makes FINAL DECI

Conditions Influencing Sortie Timeline and Order

- **Strength of Storm (CAT I vs. CAT III)**
- **Track, Speed of Storm, & radius of destructive winds / seas**
- **Reliability of Track**
- **Readiness of Units / Ability to get underway**
- **Forecasted Harbor conditions prior and during sortie**
- **Time required for all units to clear port**
- **Time of Day**

Conditions Influencing Sortie Orders

(Radius of Destructive Winds & Seas)



Sortie Meeting

- **Scheduled at Sortie Condition “C”**
- **CNSG2 Calls / Chairs**
- **Location: TBD**
- **Ships / RSG / SIMA / SUPSHIP / NAVSTA Reps**
- **Formalize Sortie CDR’s / Units**

Order of Sortie

- **NAVSTA Harbor OPS develops Sortie Movement Plan**
  - **Engineering status**
  - **Tug availability**
  - **Departure 15 - 30 min intervals**
  - **Unit 3 ships last**
  - **Coordinates with Blount Island & Tallyrand**
- **CNSG2 releases Sortie Movement Plan MSG**

Returning to Port after Storm

- **Navigation Hazards are likely.**
- **Expect pier/mooring damage.**
- **Expect limited communications throughout NAVST**
- **Inclimate weather possible for several days after storm passage**
- **Harbor Survey required**

Responsibility

- **COMLANTFLT / CTF 183**
  - **Initiated Emergency Sortie Task Force**

- A. TASK FORCE ORGANIZATION. TASK FORCE 183 SERVES AS THE ATLANTIC
- FLEET TASK ORGANIZATION FOR DESTRUCTIVE WEATHER SORTIE OPERATIONS
- AND IS ORGANIZED AS FOLLOWS:
- TASK ORG COMMANDER/COMPOSITION
- CTF 183 CINCLANTFLT
- CTG 183.0 COMSECONDFLT
- CTG 183.1 SORTIE COMMANDER NORFOLK
- **CTG 183.2 SORTIE COMMANDER MAYPORT**
- CTG 183.3 SORTIE COMMANDER PASCAGOULA
- CTG 183.4 SORTIE COMMANDER INGLESIDE
- CTG 183.5 SORTIE COMMANDER EARLE
- CTG 183.6 SORTIE COMMANDER KINGS BAY
- CTG 183.7 SORTIE COMMANDER NEW LONDON
- CTG 183.8 SORTIE COMSCLANT
- CTG 183.9 COMNAVAIRLANT (FOR ASSIGNING SAR ASSETS)
- CTG 183.10 SPARE

Responsibility (cont.)

- **COMSECONDFLT (CTG 183.0)**
  - Designates Sortie CDR's (CNSG2 assigns).
  - Fueling Requirements message
  - Produce Return to port message to CTG 183.2

- **COMNAVREG SE JAX**
  - Sets COR's for Mayport Shore Activities and I
- **NAVSTA Mayport**
  - Hurricane Preparedness Message (Harbor, mo
  - COR Attainment Reports
  - Develop Sortie Order/Movement Plan Message
- **HSLWINGSLANT and NLMOD Mayport**
  - Designate Helo DET for SAG's
  - AESR's

Responsibility (cont.)

- **CNSG2 / SOPA Mayport (MOA w/CCG6 & CCDG12)**
  - **CNSG2 Executive Agent**
  - **Assigns Sortie CDR(s)**
  - **Initiate OPTASK Comms message (261745ZAPR04)**
  - **Hurricane Season Preparedness Message (May)**
  - **INFO Mayport ships on COR setting, preps and changes.**
  - **Sets Sortie Conditions for all Mayport ships. (message includes time and location for Sortie meeting)**
  - **Provides attainment reports to C2F**
  - **Provide additional information as conditions warrant.**

Responsibility (cont)

- **Sortie Commander Mayport (CTG 183.2)**
  - **CNSG2 Assigns Sortie Commander**
  - **CNSG2 Assigns Sortie Units (CTU 183.2.1/CTU 183.2.2) and TASKORG for Mayport Ships**
  - **Create Sortie Plan/OPGEN and direct**
  - **TASKORG Msg for Mayport Ships**
  - **Embark Helo / MET DETS**
  - **Use Standing COMM Plan and coordinate COMM checks**
  - **Evade to open sea and coordinate Unit RDVU**

  - **RQST OTSR!!!**
  - **Monitor Fuel State. Report if < 50 %**
  - **Daily Status SITREP**

Responsibility (cont)

- **COMREGSUPPGRU Mayport**

  Provides Weekly Readiness Status message.

- **Weekly RSG Summary (sample)**

RMKS/1. THE FOLLOWING IS READINESS STATUS OF SHIPS INPORT MAYPORT AS
OF 14 MAR 02:

SHIP	FUEL PCT	UNIT	DTG OF MSG	NOTES HELO PUK
USS CARNEY	94.3	1	122017ZMAR02	
USS HALYBURTON	93	3	131301ZMAR02	(A) PARTIAL
USS SPRUANCE		92.9	3 121830ZMAR02	(B) PARTIAL
USS TAYLOR	91.1	1	PHONCON 14MAR	COMPLETE
USS DE WERT		91	1 132123ZMAR02	(C) COMPLETE
USS MCINERNEY	90	5	121603ZMAR02	(D)
USS ESTOCIN	88.5	5	122152ZMAR02	(E)
USS ROOSEVELT	74	1A	PHONCON 14MAR	(F) COMPLETE
USS OBANNON	49	5	131815ZMAR02	(G)
USS PHILIPPINE SEA	34.1	5	131845ZMAR02	(H) PARTIAL

2. NEXT UPDATE: 21 MAR 02 PER REF B.

Unit Criteria

- **UNIT 1 - Underway in 4 HRS with 50% power & >85% Fuel**
- **UNIT 1A - Same as 1 except underway in 24 HRS**
- **UNIT 2 - Underway in 24 HRS with 50% power**
- **UNIT 3 - >24 HRS to get underway**
- **UNIT 4 - Smaller ships able to go to Hurricane berths / anchorage's (PC, MCM, ETC.)**
- **UNIT 5 - Ships in Drydock / unable to move**

85% Fuel requirement initiated by COMSECONDFI

Responsibility (cont)

- **Individual Ships/Units**

- **Develop and Maintain Destructive Weather Instructions and SOP's**
  - **Shipboard Destructive Weather Instructions**
  - **SOPA Manual (SOPAMYPORTINST 5440.3(G) CH6)**
  - **OPNAV Destructive Weather Instruction (OPNAVINST 3140.24E)**
  - **NSTM Chapter 582 - Heavy Weather Mooring Procedures**

- **Have instructions readily available for watches.**

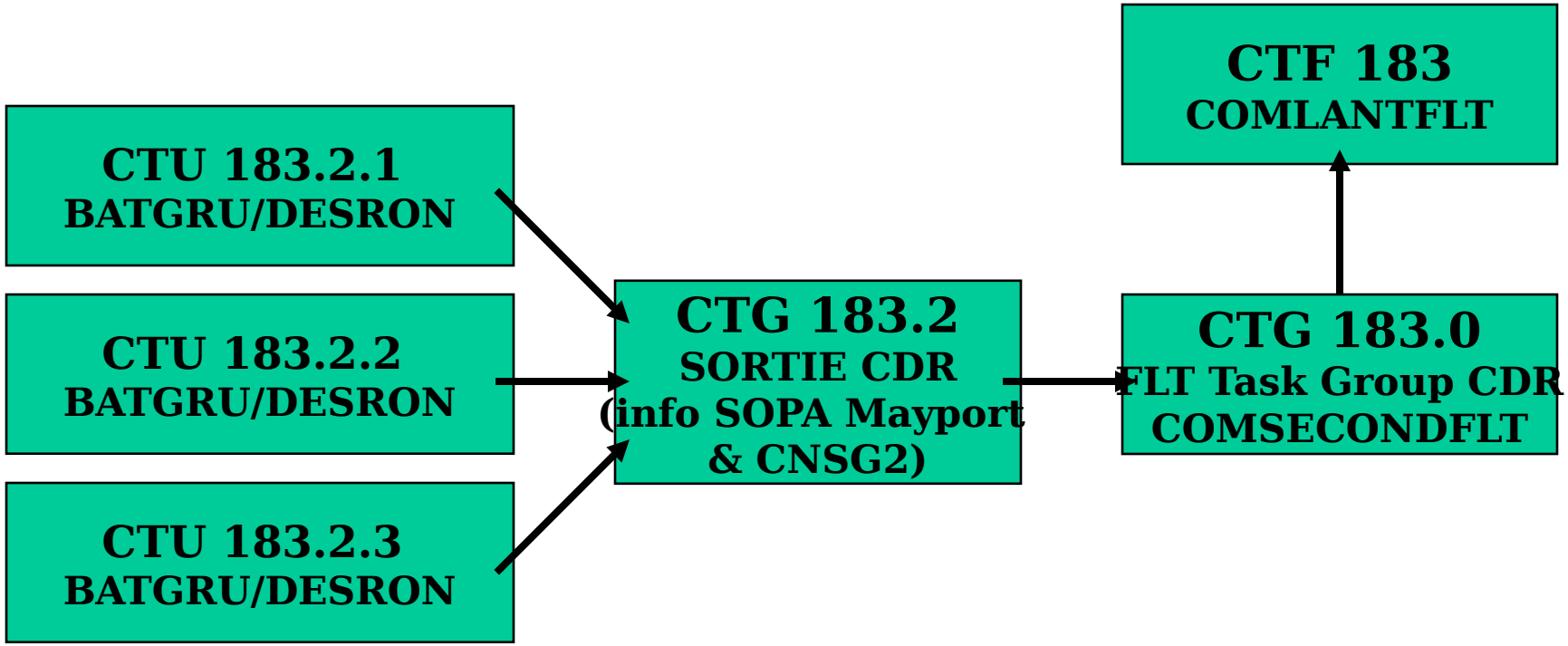
- **Train personnel, watch teams, and dependents.**

Responsibility (cont)

- **Individual Ships/Units (cont.)**

  - **Monitor COMMS when Destructive Weather threatens**
  - **Rapid Attainment Reports to CNSG2 SDO**
  - **Know Heavy Weather Mooring Procedures and availability and location of additional lines**
  - **Keep abreast of weather at all times**

Attainment Reporting for Sortie Conditions



Guidance / Resources

PUBS :

- **Warnings & COR's for Destructive WX: OPNAVINST 3140.24E**
- **Destructive Weather Plan: CNRSEINST 3140.1E**
- **Manual of SOPA, Mayport: SOPAMYPTINST 5440.3G CH6**
- **Aircraft Destructive Weather Plan: CHSLWLINST 3141.1C**
- **Hurricane Havens Handbook for the North Atlantic**
- **Mariner's Guide for Hurricane Awareness in the North Atlantic**

INTERNET SOURCES:

- **https://www.weather.navy.mil (Navy Weather NAS Norfolk)**
- **https://www.nlmof.navy.mil (Navy Weather NAS JAX)**
- **http://www.nhc.noaa.com (National Hurricane Center)**
- **http://www.cnsl.spear.navy.mil/CNSG2/weather.htm (CNSG2 Weather)**

POC: LT Ted Dorics
270-7354 EXT. 113
tdorics@cnsg2.navy.mil

Mobile Environmental Team (MET) Jacksonville

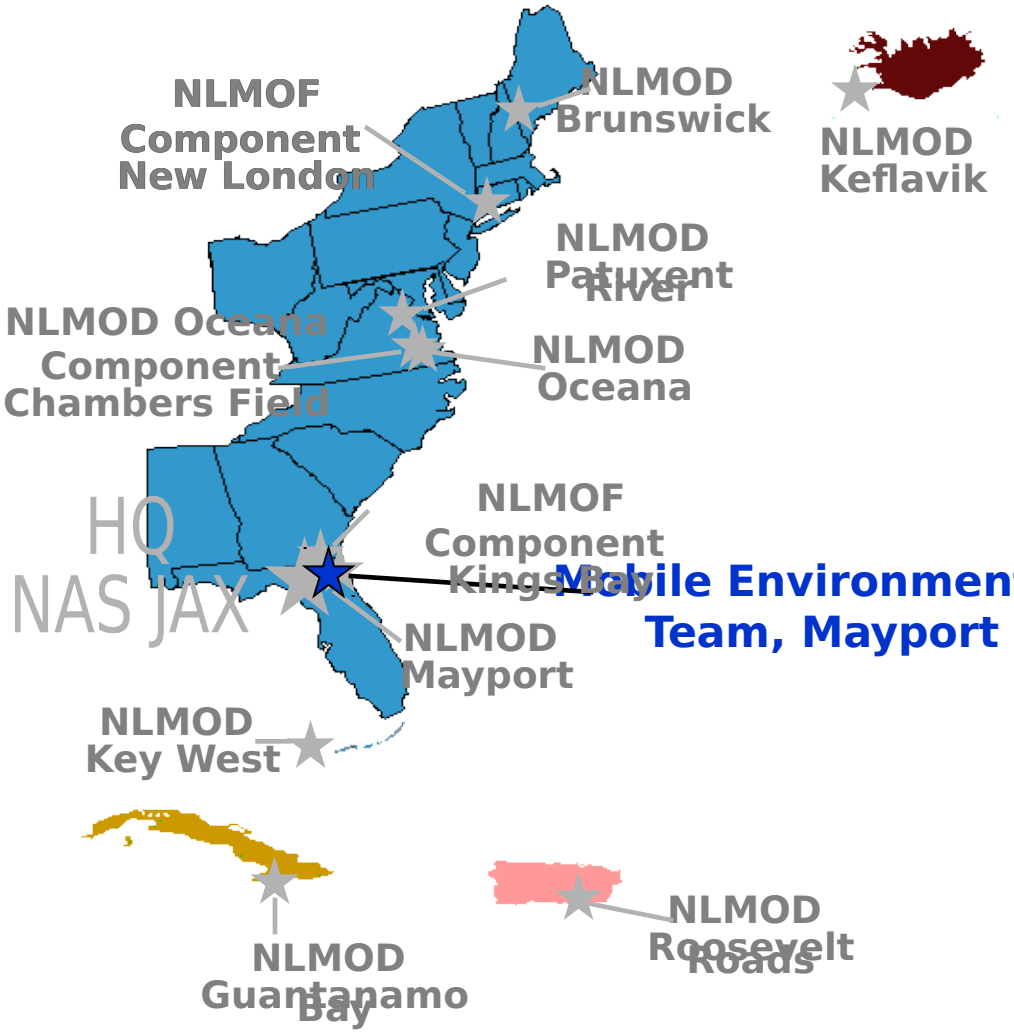
...Enhancing the War fighter's effectiveness through optimum use of the environment.

MET Mission Focus

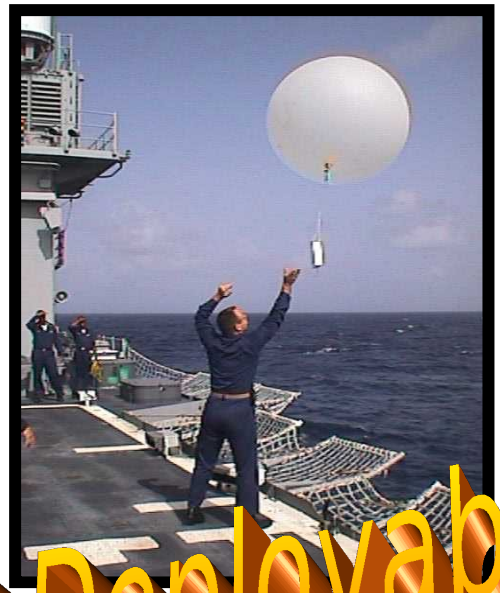
OPS…Full spectrum METOC services to deployed Forces .

Fleet Liaison…METOC training and briefing services to the ships and staffs of Naval Station, Mayport.

Mobile Environmental T
(Global Maritime and Land Serv



Mobile Environmental Team, Mayport



9 Deployable Teams

Mayport Hurricane Teams

Sortie with the Fleet

- **2 Teams ISO Mayport SAGs.**
- **1 Team ISO Pascagoula SAG.**

- **Teams assigned per SOPA guidance.**
- **Embark ship(s) at Sortie Condition B.**
- **Team (Forecaster and Technician).**
- **Gender mix limited by Current Operations.**

MET Sortie Considerations

Communication Requirements:

- Radio to copy LMHB (METOC Broadcast)
- NIPRNET or SIPRNET
- Access to: E-mail, Chat, and INMARSAT

Sortie Services - Safety of the Fleet:

- WEAX

Hurricane Preparedness Support (Briefs and Training)

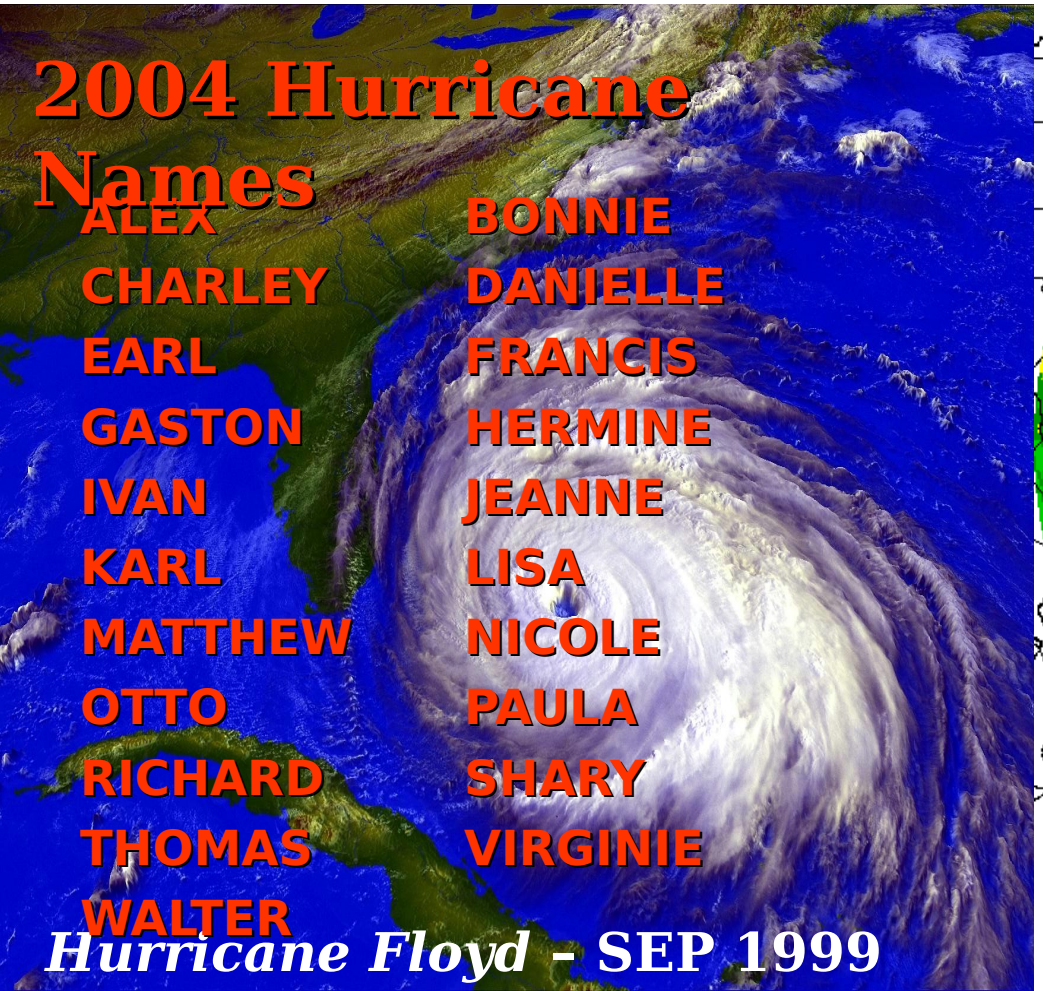
NAVSTA Mayport:

Mobile Environmental Team
270-7800
e-mail: metjax@nlmof.navy.mil

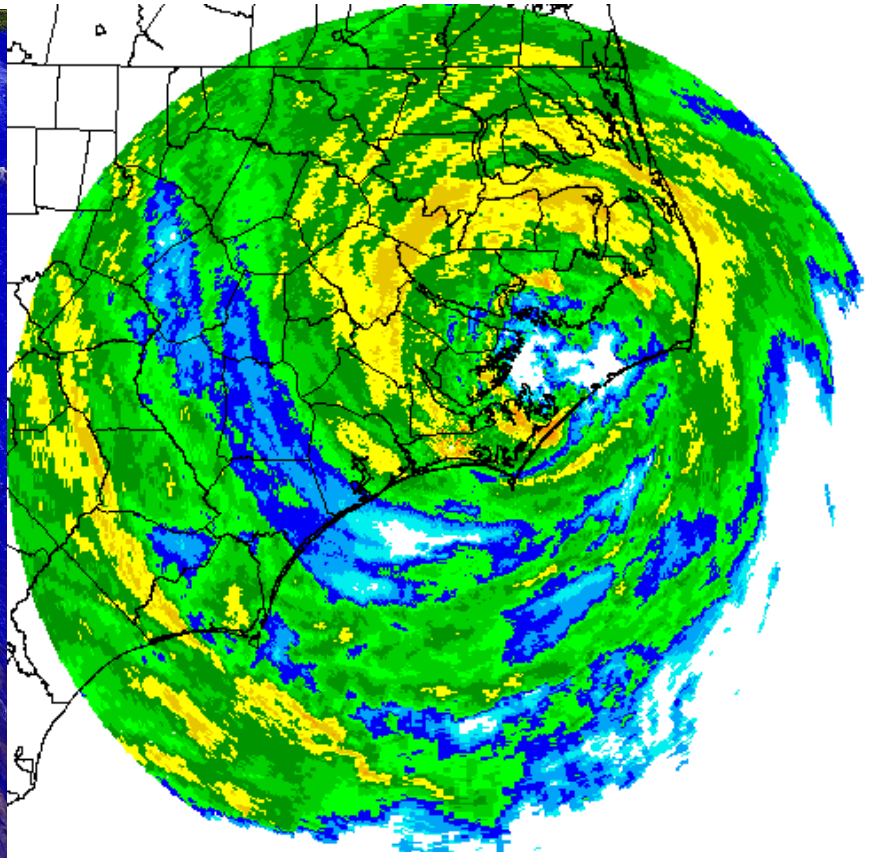
NAS Jacksonville:

NAVLANTMETOCFAC Jacksonville
542-2535
e-mail: cdo@nlmof.navy.mil

Questions?



Hurricane Floyd – SEP 1999



Hurricane Isabel – 18 SEP

HARBOR READINESS AND SORTIE

FINEST SERVICE TO THE FINEST FLEET

LCDR GLEN BOURQUE

HARBOR OPERATIONS

OVERVIEW

- INTRODUCTION
- TALLEYRAND WHARF
- MAYPORT WHARF MOORING
- KEY PROBLEMS IN STORM MOORING
- HEAVY WEATHER
- HURRICANE CONDITIONS
- HURRICANE RECOVERY
- MISSION
- CONCLUSION
- QUESTIONS

INTRODUCTION

- **The U.S. Navy standard practice is to put major ships to sea in case of an approaching *hurricane* threatens a given port. However, a *hurricane* plan is required in case one or more ships is disabled and unable to get underway.**
- **A ship that breaks it's mooring gear in a *hurricane* can result in major property damage, loss of life and /or total loss of the ship(s). Mooring equipment can be relatively inexpensive by comparison. *It is prudent to plan ahead to provide mooring designs and hardware to ensure safe***

INTRODUCTION cont.

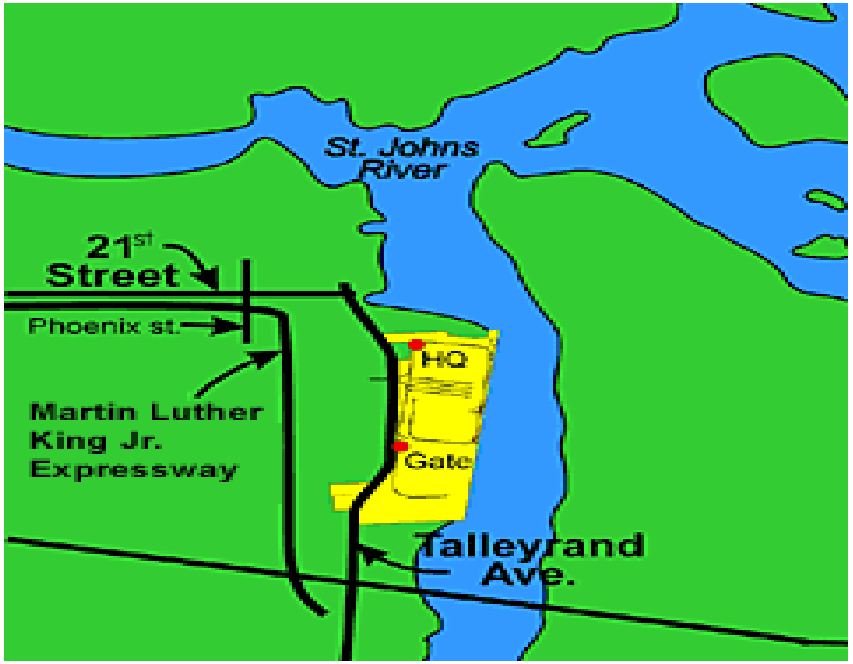
- **Due to the limited facilities available in the area, it is highly recommended that the number of ships disabled be kept to a minimum.**
- **If a ship is unable to sortie, there are 3 reserved berths available that offer the best chance of success and least risk.**
  - ***Fixed mooring at Talleyrand Wharf.***

MOA:

A Memorandum of Agreement between NAVSTA Mayport and the Jacksonville Port Authority (JPA). During tropical storm and hurricane threats to the Mayport area a NAVSTA Mayport and Jacksonville Port Authority (JPA) contingency plan provides a safe mooring for

JAXPORT
Jacksonville Port Authority

Tallyrand Wharf



TALLEYRAND

Tallyrand Wharf

Technical Information

Location	**Approximately 21 miles from the mouth of the St. Johns River**
Terminal area	**173 acres — paved, lighted and secured.**
General berths	**#3 — 700 linear feet** **#4 — 800 linear feet** **#5 — 800 linear feet** **#6 — 800 linear feet** **#7 — 800 linear feet** **#8 — 900 linear feet**
Apron Width	**80 feet**
Depth alongside MLW	**36 feet** ***Mean Low Water. . The average height of all the low waters recorded over a 19-year period, or a computed equivalent period.***
Deck height above MSL	**7 feet** ***Mean Sea Level. The mean surface water level determined by averaging heights at all stages of the tide over a 19-year period.***
Highway Connections	**-95 and I-10 to U.S. 1 leading to 8th, 11th, or 21st Streets**

Tallyrand Wharf

Security Information

The Jacksonville Port Authority considers port security to be of paramount importance. JAXPORT's Strategic Plan charges the authority with developing a comprehensive security program which protects port employees, tenants, property and assets, and which is consistent with the threat exposure of the Jacksonville Port Authority.

Some of the improvements include increased security fencing around tenants' facilities, augmented patrols by security forces on the terminals, a full-time presence of the Jacksonville Sheriff's Office, the US Coast Guard, and the installation of high-mast lighting, and security cameras.

JAXPORT is also currently implementing Florida Statute 311.12 (Seaport Security Act) to establish a safe and secure port.

HURRICANE MOORING

- **Talleyrand Wharf Advantages**
  - **Less storm surge than on the coast**
  - **Less wave activity than in Mayport basin**
  - **Permits not required**
  - **Large number of high capacity double bitts on wharf.**
  - **Large amount of wharf space**

HURRICANE MOORING

- **Talleyrand Wharf Disadvantages**

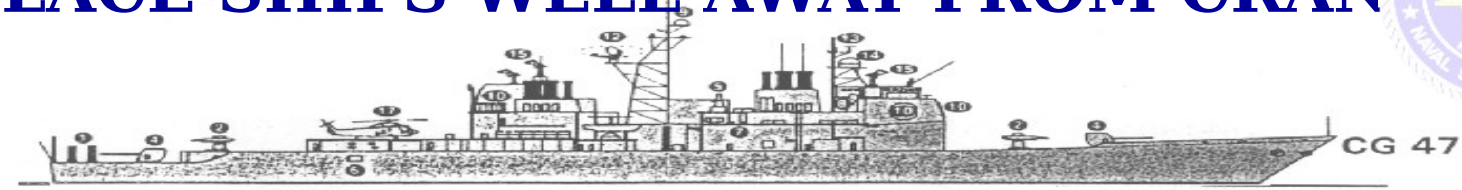
  - **Surge at extreme high tide will submerge wharf. Risk of camel contacting lines or coming out.**

Risk may be acceptable!

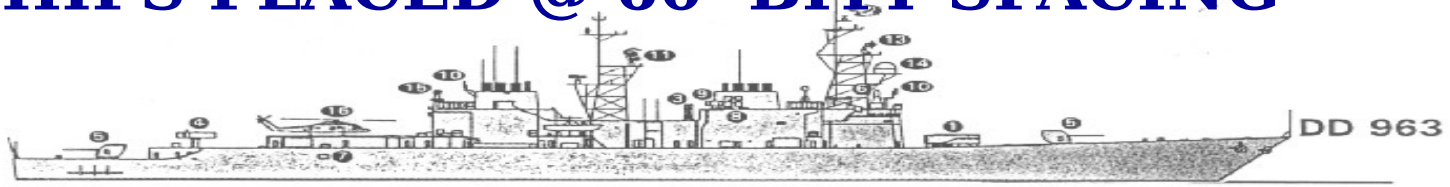
  - **Special lines must be used and careful setting for load share.**
  - **Liability issues.**
  - **Tugs in short supply prior to hurricanes.**
  - **Mooring would be time and labor intensive.**
  - **Camels would have to be pre-staged.**

HURRICANE MOORING

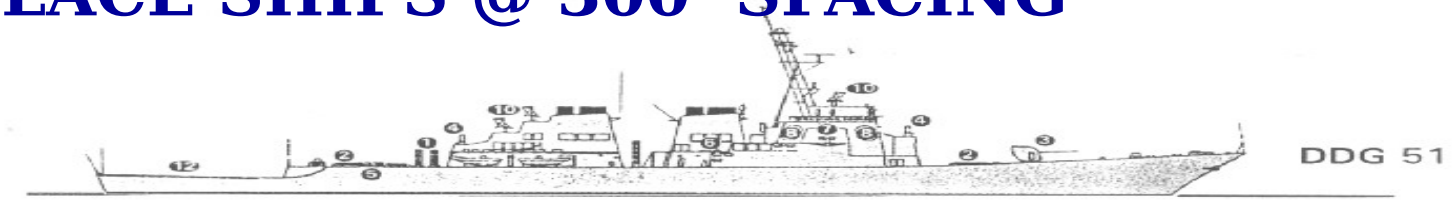
1. PLACE SHIPS WELL AWAY FROM CRAN



2. SHIPS PLACED @ 60’ BITT SPACING



3. PLACE SHIPS @ 300’ SPACING



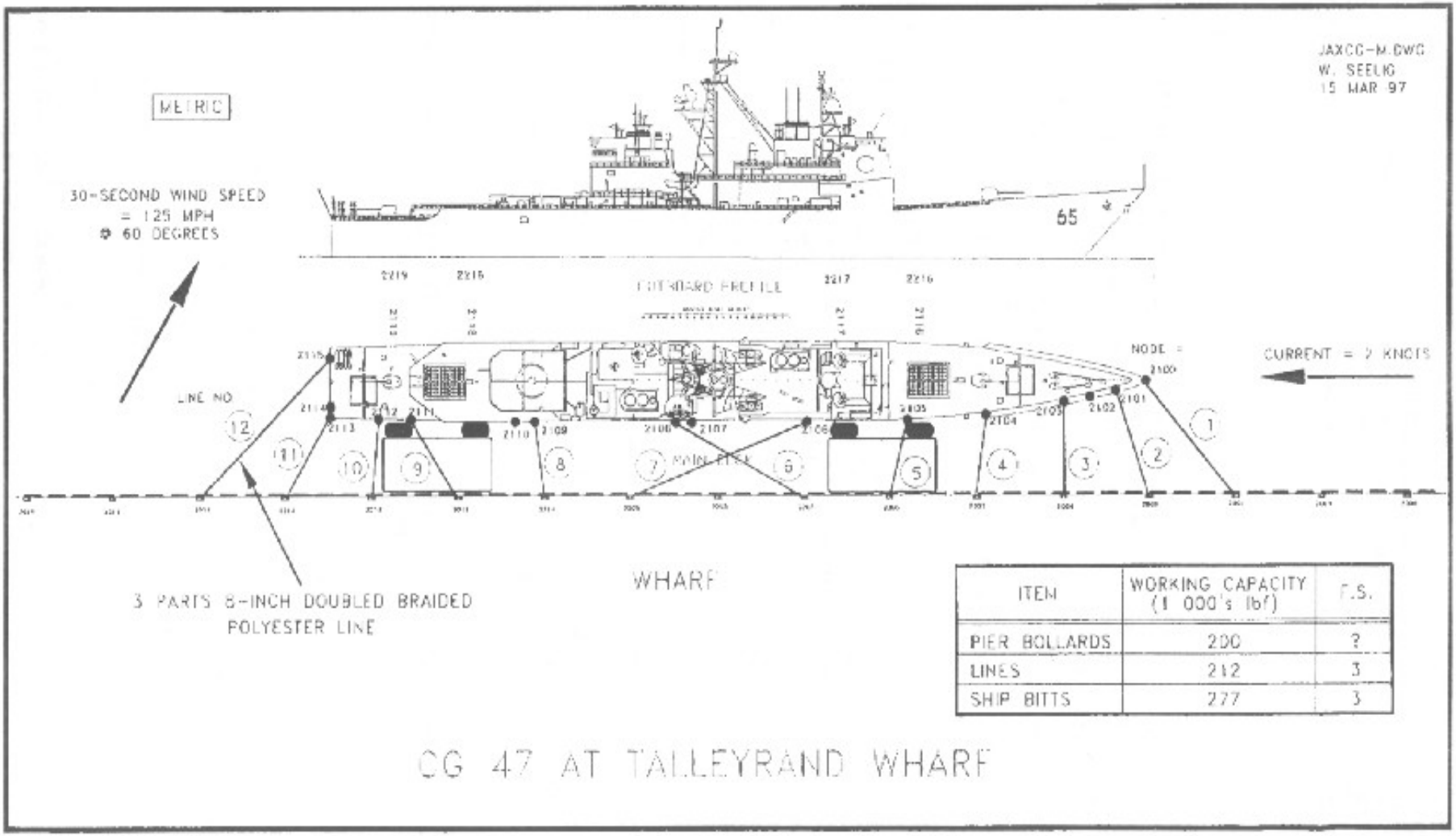
4. PLACE 2 CAMELS AND FENDERS

5. DOUBLE UP LINES W/3 PARTS FROM BITT TO B

6. SECURE ALL LINES HAND TIGHT

Figure 1. SHIPS TO BE MOORED

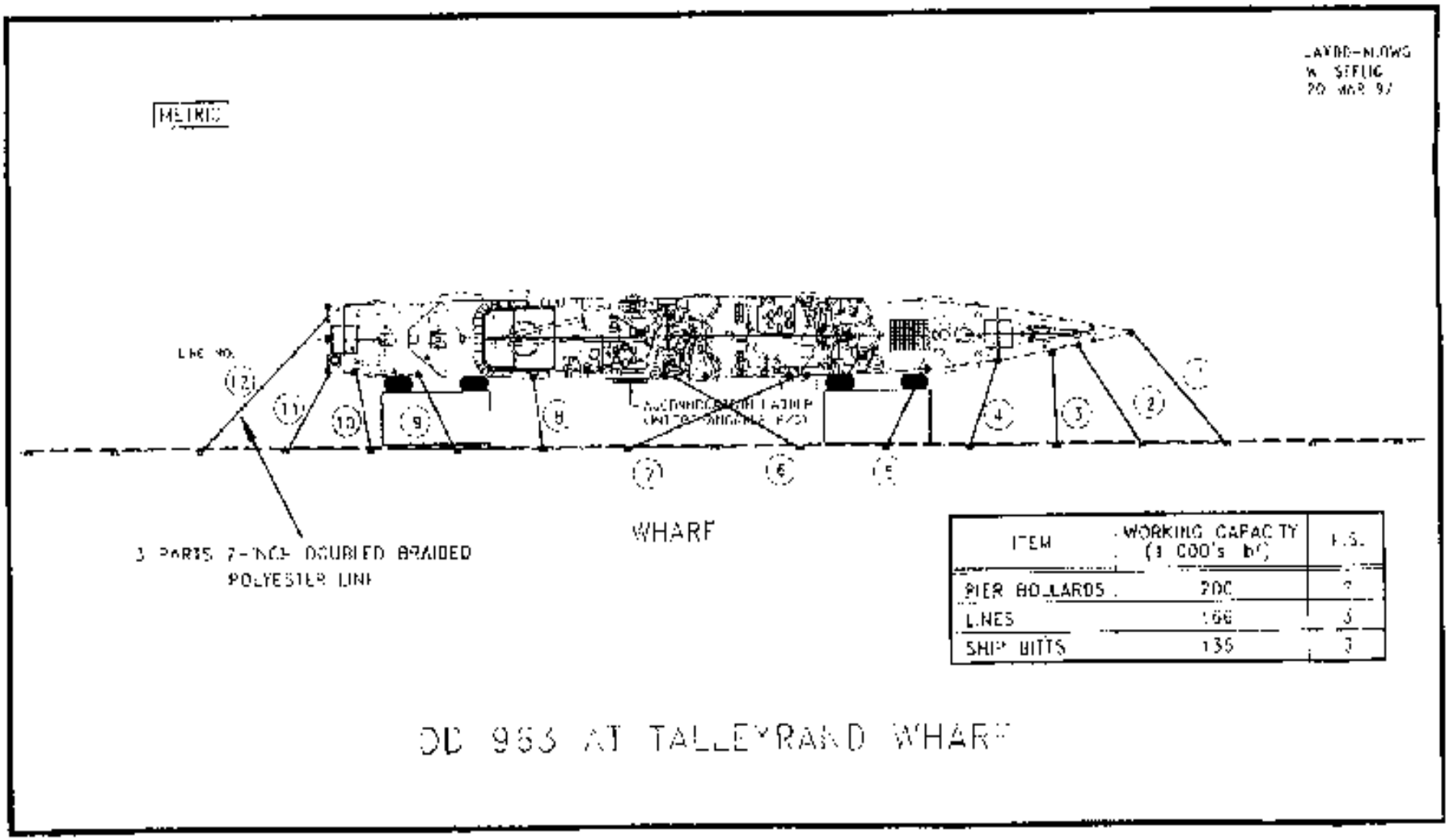
HURRICANE MOORING
CG 47



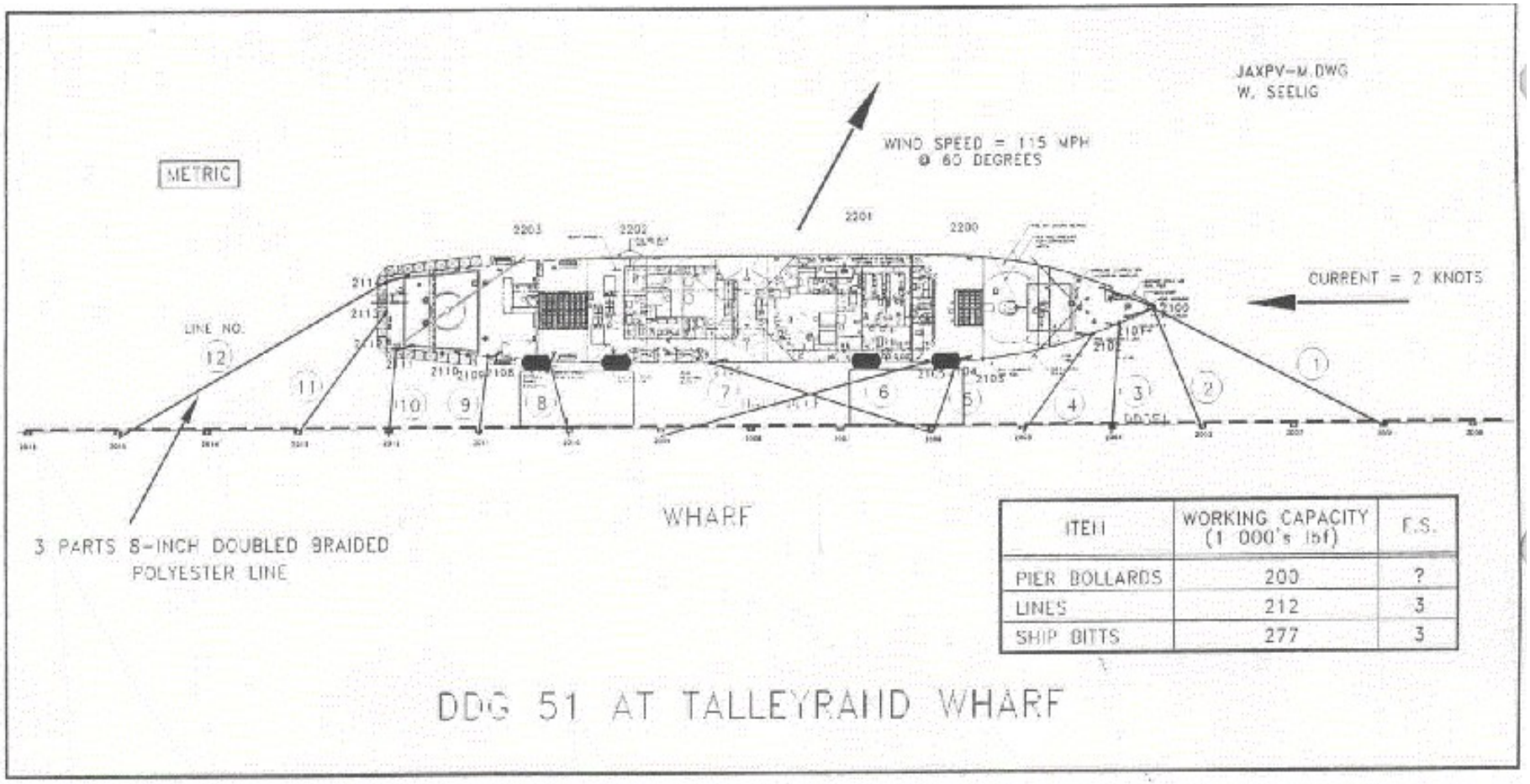
ITEM	WORKING CAPACITY (1 000's lbf)	F.S.
PIER BOLLARDS	200	?
LINES	212	3
SHIP BITTS	277	3

CG 47 AT TALLEYRAND WHARF

HURRICANE MOORING
DD 963



HURRICANE MOORING
DDG 51



ITEM	WORKING CAPACITY (1 000's lbf)	F.S.
PIER BOLLARDS	200	?
LINES	212	3
SHIP BITTS	277	3

Figure 6. PLAN VIEW OF DDG-51 HURRICANE MOORING @ JAXPORT

HURRICANE MOORING
FFG 7

5-INCH DOUBLED BRAIDED POLYESTER	
LINE NUMBER	TOTAL LINE LENGTH
	(ft)
1	400
2	350
3	350
4	300
5	450
6	500
7	275
8*	375
9	275
10	300
11	350
*LINE COULD BE RUN ACROSS DECK TO THE PORT BITT	

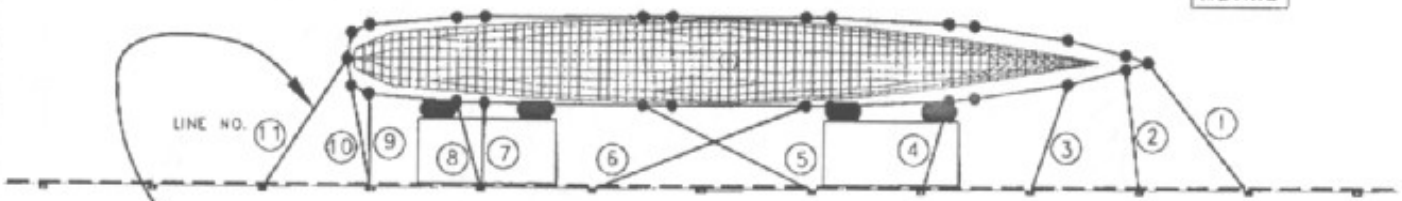
NOTES

1. PLACE SHIPS ON TALLEYRAND WHARF WELL AWAY FROM CRANES.
2. PLACE SHIP AT WHARF WHERE BOLLARD SPACING IS 60 FEET.
3. PLACE SHIPS APPROXIMATELY 300 FEET APART.
4. PLACE TWO CAMELS AND FENDERS AS SHOWN.
5. 'DOUBLE-UP' ALL LINES WITH THREE PARTS OF LINE RUNNING FROM EACH BITT TO BOLLARD AS SHOWN.
6. SECURE ALL LINES 'HAND TIGHT'.

JAXFFG-W.DWG
W. SEELIG
22 MAR 97

100 ft
30 m

METRIC



WHARF

3 PARTS 5-INCH DOUBLED BRAIDED POLYESTER LINE

ITEM	WORKING CAPACITY (1 000's lbf)	F.S.
PIER BOLLARDS	200	2
LINES	87	3
SHIP BITTS	73.1	3

FFG 7 AT 1/3 STORES CONDITION
MAXIMUM SAFE 30-SECOND DURATION
WIND SPEED = 99 MILES PER HOUR

FFG 7 AT TALLEYRAND WHARF

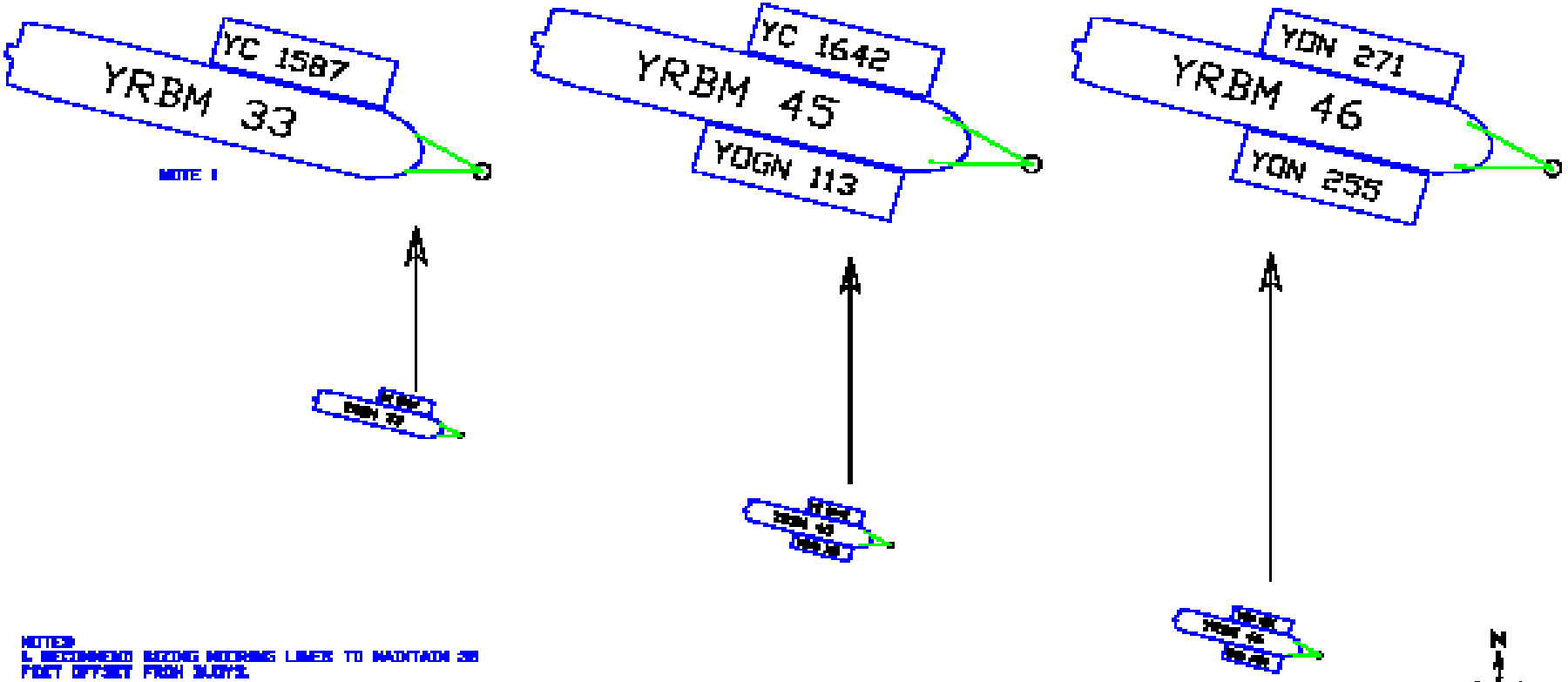
HURRICANE MOORING

Double Braided Polyester Line

Line #	CG-47 8”	DD-963 7”	DDG-51 8”	FFG-7 5”
1	500	525	725	400
2	350	400	425	350
3	350	350	325	350
4	300	325	350	300
5	425	325	250	450
6	550	425	750	500
7	300	575	575	275
8	300	300	250	375
9	300	325	250	275
10	300	300	300	300
11	350	350	425	350
12	600	600	750	

HURRICANE MOORING

YRBM AND APL AT BLOUNT ISLAND



NOTES:
1. RECOMMEND BEDDING MOORING LINES TO MAINTAIN 200 FOOT OFFSET FROM BLOCKS.

NFESC RECOMMENDED HVM
GROUPING FOR NAVSTA MAYPORT
SUPPORT CRAFT 4/8/04

MAYPORT WHARF MOORING

- **This would be risky. The combination of high winds, storm surge and waves could put ships at risk if a design *hurricane* made a hit. The combination of water levels and waves could be especially devastating.**
- **If a design storm surge occurs, then the wharfs and jetties would be submerged which would allow waves to enter into the Mayport basin without any resistance.**
- **The existing facilities at Mayport were not designed for these extreme hurricane conditions.**

❖ **IAW NSTM 582**

"vessels will leave port prior to an approaching *hurricane*"

KNOW YOUR SHIP, BE PREPARED TO GET

KEY PROBLEMS IN STORM MOORI

- **The most critical technical factors to address in *hurricane* mooring at piers and wharfs are:**
  - **Lines must share the load, so all of a large number of lines must be correctly rigged.**
  - **Storm surge must be accounted for.**
  - **Waves (if any) must be considered.**

KEY PROBLEMS IN STORM MOORING

- **The ship is "*fixed*", so a broadside or quartering wind produces high forces and moments on the ship.**
- **Wind/current forces and moments must be resisted.**
- **The lines must resist fatigue due to cycling loading caused by wind gusts and waves.**

- **A special problem with a "*fixed*" mooring is that**

if one of the lines parts, then this can lead to a chain reaction "*un-zipping*" of other mooring lines

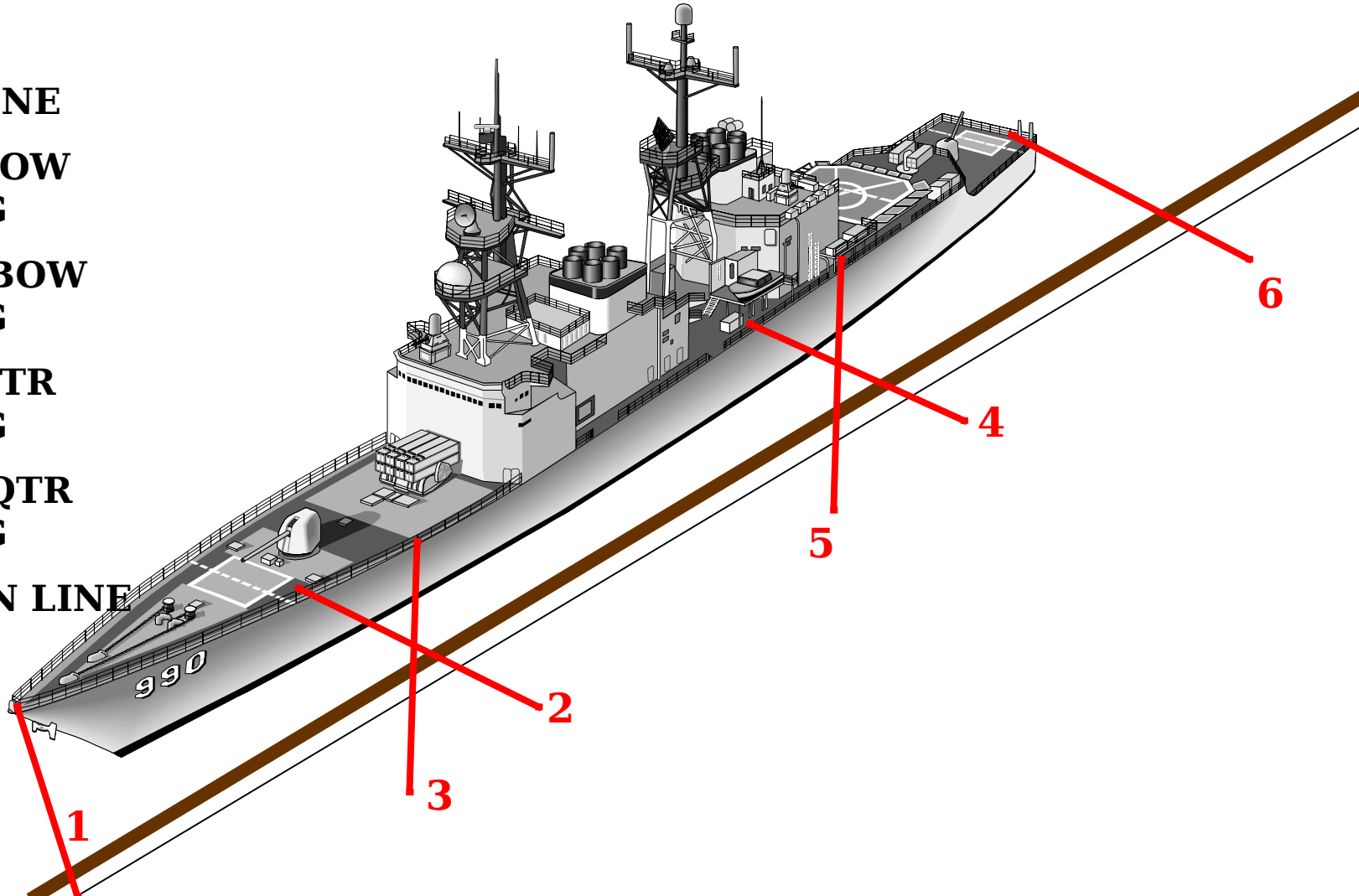
MOORING LINE ARRANGEMENT

❖ NORMAL WEATHER CONDITIONS

MST II

<64-KT WIND / 2-KT BROADSIDE CURRENT

1. BOW LINE
2. AFT BOW SPRING
3. FWD BOW SPRING
4. AFT QTR SPRING
5. FWD QTR SPRING
6. STERN LINE



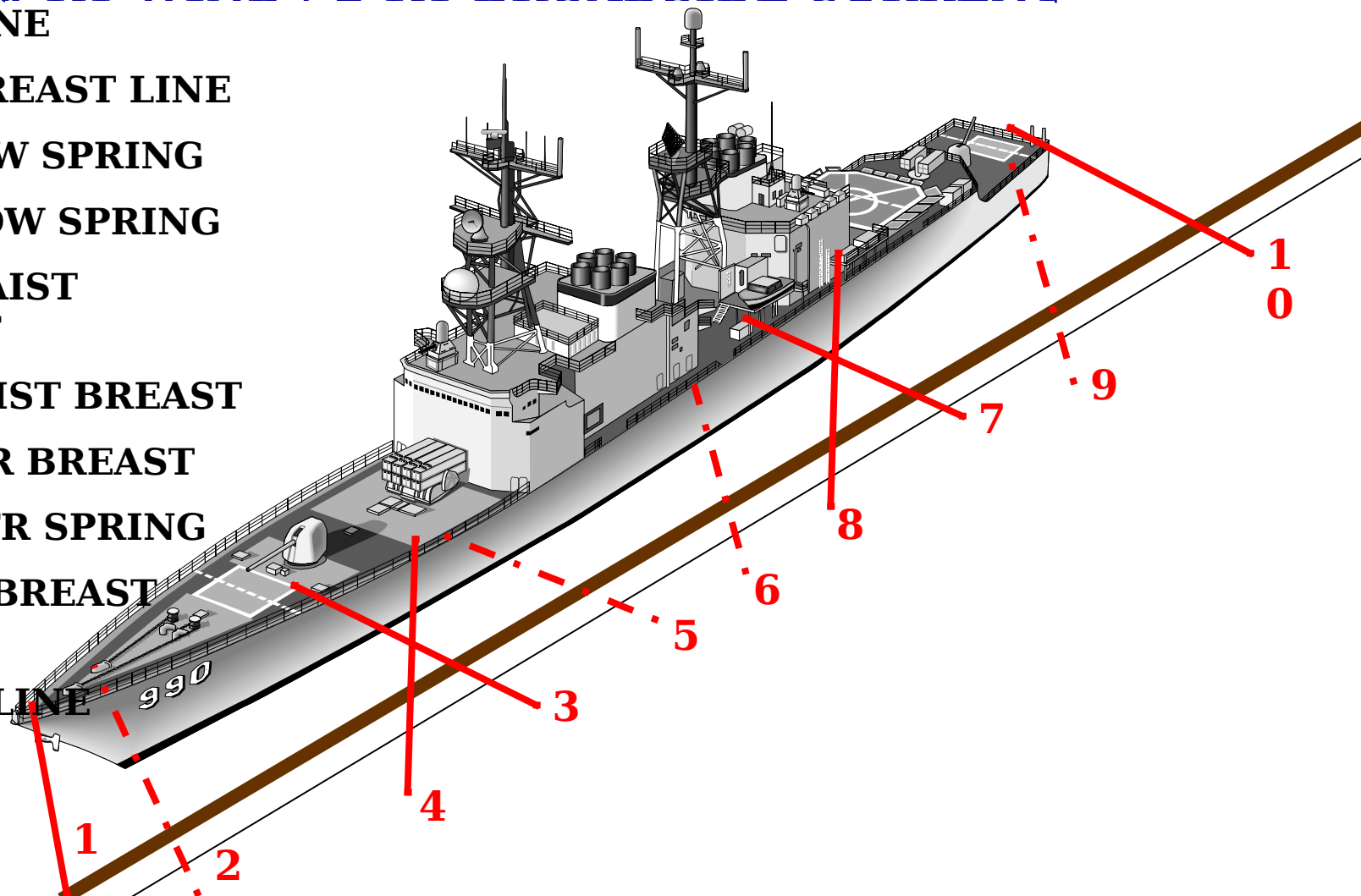
MOORING LINE ARRANGEMENT

❖ HEAVY WEATHER CONDITIONS

MST III

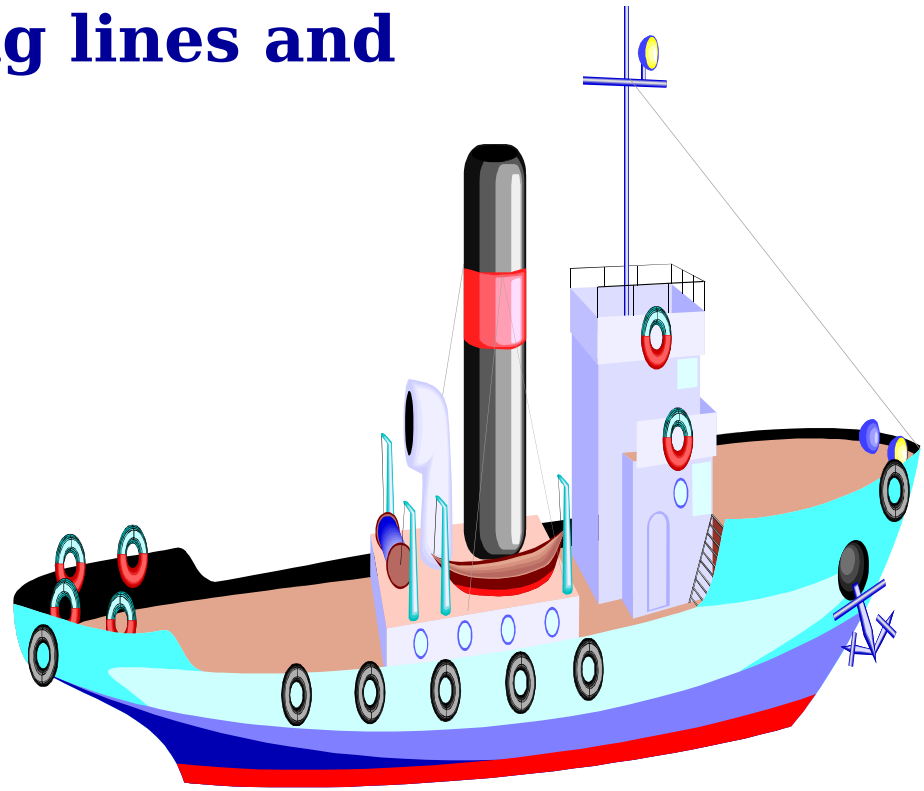
90-KT WIND / 2-KT BROADSIDE CURRENT

1. BOW LINE
2. BOW BREAST LINE
3. AFT BOW SPRING
4. FWD BOW SPRING
5. FWD WAIST BREAST
6. AFT WAIST BREAST
7. AFT QTR BREAST
8. FWD QTR SPRING
9. STERN BREAST LINE
10. STERN LINE



USE OF HARBOR TUGS

- **If the storm is not expected to be extremely severe within the harbor, *tugboats* may be available to assist the ship to remain pier side and help relieve the strain on the mooring lines and camels.**



HEAVY WEATHER

➢ **Harbor Operations sets the following procedures fo the upcoming Hurricane and Summer Thunderstorm**

1. **Sustained winds of 25 knots or greater : (*service craft*)**
   - **All small boats removed from water.**
2. **Sustained winds below 30 knots:**
   - **One C-Tractor on duty**
   - **Second C-Tractor (30 minute recall)**
3. **Sustained winds 30 – 35 knots:**
   - **Two C-Tractor on duty**
   - **Third C-Tractor (30 minute recall)**

HEAVY WEATHER

➢ **Harbor Operations sets the following procedures fo**
the upcoming Hurricane and Summer Thunderstorm

4. **Sustained winds > 35 knots:**
- **Three C-Tractors on duty**

5. **Pilots on standby as conditions dictate:**
- **Anytime a C-Tractor has lines up to a ship, a pilot will be in control of the C-Tractor.**

6. **Brows / Towers:**
- **Sustained winds > 30 knots, remove brows from towers and secured on the pier.**

➢IN CASE OF HEAVY WEATHER:

- REVIEW SHIPS SPECIFIC HEAVY WEATHER MOORING BLUE PRINTS.
- REVIEW NSTM 582 AND REVISIONS. IAW NSTM 582 2.4.6.4.3
  ALL SHIPS ARE REQUIRED TO MOOR USING DOUBLE UP (EYE AND A BIGHT). THIS ALLOWS THE SHIP TO BE HELD IN PLACE WITH THREE PARTS OF LINE HOLDING THE SHIP TO THE PIER.
  - ***DDG 51/79 Class ships using the 300 kip BS Spectra lines should not double up mooring lines, this can lead to overload on both ship and pier fittings!***
- ENSURE ALL LINES ARE OF CORRECT SIZE AND HAVE CHAFFING SLEEVES INSTALLED.
- LINES SHOULD BE CHECKED EVERY HALF HOUR, AND AT TIMES, EVEN HAND TENDED TO COMPENSATE FOR INCREASING TIDES, CURRENTS, WIND, AND WAVE ACTION.

MOORING SERVICE TYPES

Table 582-1-1 MOORING SERVICE TYPES

Mooring Service Type	Description
MST I Mild Weather	Mooring in up to a 34-knot wind with a current of 1 knot or less from any direction.
MST II Storm Mooring	Mooring in up to a 64-knot wind with a 2-knot broadside current or less. This is the intended Navy ship mooring design requirement.
MST IIA Alternative Storm Mooring	Mooring in up to a 50-knot wind with a 1 1/2-knot broadside current or less; or up to 64-knot wind with a 1-knot broadside current or less. This is the minimum acceptable capability for ships that do not meet intended design criteria.
MST III Heavy Weather Mooring (HWM)	Mooring in up to a 90-knot wind with a 2-knot broadside current or less. This is the minimum requirement for vessels that cannot or may not get underway prior to an approaching hurricane or typhoon. Actual design conditions are site dependent and based on 50 year weather patterns.
MST IV Permanent Mooring	Permanent mooring of a vessel that will not leave in case of a hurricane, typhoon or surge. Design conditions are site dependent and based on 100 year weather patterns.

HEAVY WEATHER

➢ WARNING

- **Summertime storms sometimes hit with little advanced notice. All hands must keep a vigilant lookout for *missile hazards* onboard ships and Naval Station.**
- **NAVSTAMYPT *weather updates* and *warnings* received from the METOC DET (IE. high winds, thunderstorms, tornado warnings, etc.) will be passed on to ships via**

CH. 12 and CH 74.

HARBOR OPERATIONS ACTIONS

- **CONCURRENT**

- **HURRICANE CONDITION IV**

1. **Ensure C-tractors are provisioned to capacity.**
2. **Coordinate and direct shuttling of all non-self propelled craft to an assigned safe anchorage or mooring, utilizing C-tractors.**
3. **Coordinate berthing for disabled ships at Talleyrand Wharf.**
4. **Commence pick-up of camels not in use.**

➢HURRICANE CONDITION III

1. When directed by SOPA, commence ship SORTIE and move disabled ships to Talleyrand Wharf.
   - ❖ SORTIE of ships will be conducted at 15 min. intervals.
   - ❖ Disabled ships to Talleyrand requires a minimum of 8 hours.

2. Move all YC's, service craft, and C-Tractors to Blount Island hurricane anchorage.

3. Move all designated oil spill equipment to Craig Air Field.

4. Ensure piers are free of missile hazards. Inform crews to remove bicycles from

HURRICANE CONDITION II

- **Continue *hurricane* preparations.**

HURRICANE CONDITION I

- **Upon Commanding Officer's order:**

EVACUATE BASE

Amy E. Conn / AP

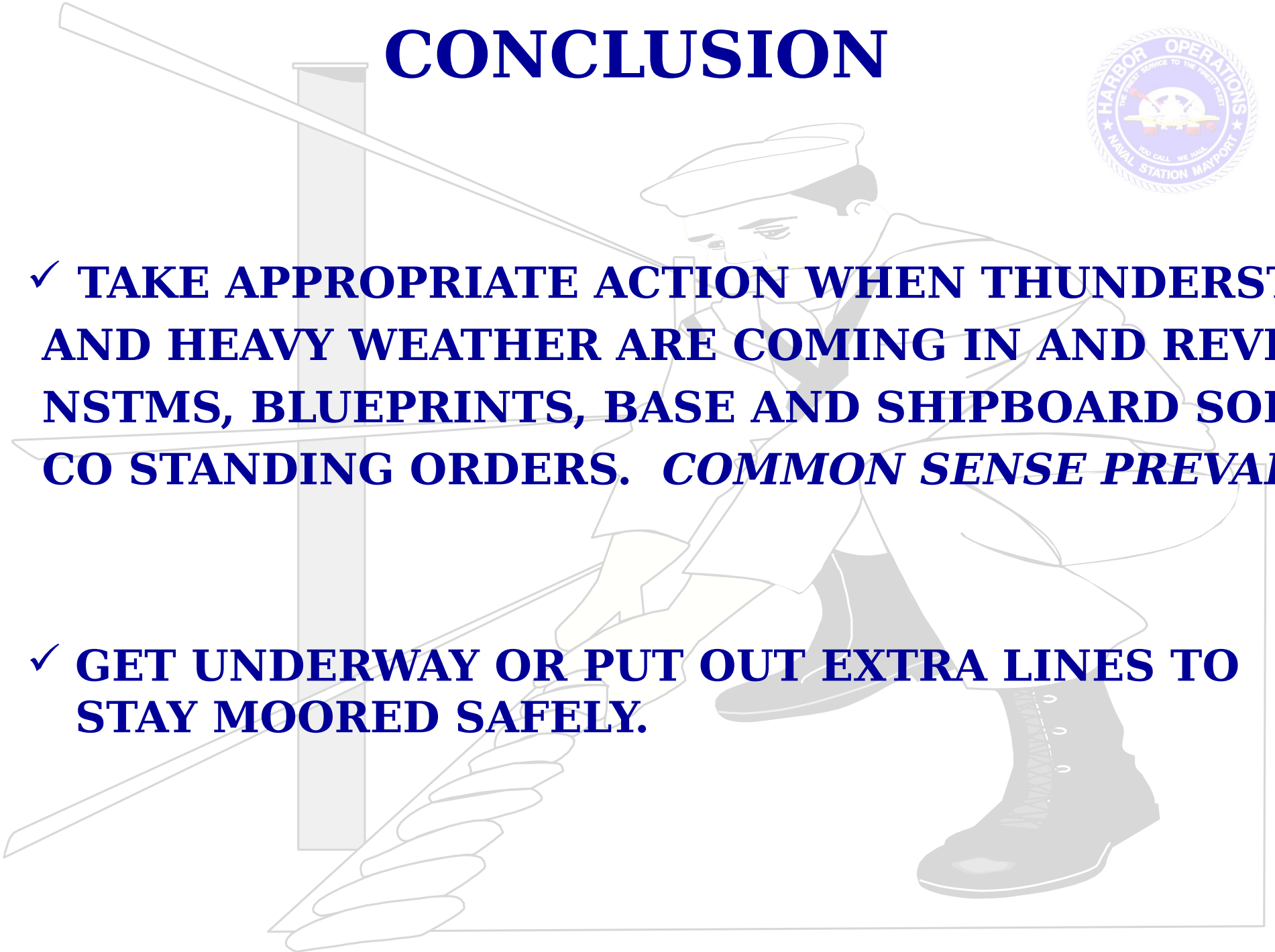
HURRICANE RECOVERY

- **RESTORE HARBOR**
  - **Perform fathometer survey of harbor.**
  - **Assess damage.**
  - **Reconnect fendering systems.**
  - **Take necessary actions to re-open port.**
  - **Bring the Fleet home!**

➢HARBOR OPERATIONS MISSION

- **PROVIDE INFORMATION AND MATERIAL ASSETS TO ASSIST SHIPS TO REMAIN SAFELY MOORED.**
  - **DISEMINATING WEATHER INFORMATION**
  - **TUG BOAT SERVICE**
  - **CONTAINMENT BOOM and REEL**
  - **CAMELS, FENDERS AND YOKOs**
  - **8, 7 and 5 inch *DOUBLE BRAIDED POLYESTER LINE***

CONCLUSION



- ✓ **TAKE APPROPRIATE ACTION WHEN THUNDERST**
  AND HEAVY WEATHER ARE COMING IN AND REVI
  NSTMS, BLUEPRINTS, BASE AND SHIPBOARD SOP
  CO STANDING ORDERS. *COMMON SENSE PREVAI*

- ✓ **GET UNDERWAY OR PUT OUT EXTRA LINES TO STAY MOORED SAFELY.**

DONT TREAD ON ME

QUESTIONS ?

COMMENTS ?

POC: ENCM(SW)
Beasley
270-7400
William.beasley1@navy.mil

Hurricane Season Preparation & Evacuation Procedures

Emergency Management Office

Naval Station Mayport

Fire & Emergency Services

When Do We Start?

Hurricane Season: June 1 – November 30

NS Mayport Emergency Management Office

270-5334/5 Bldg 365

Who's In Charge ?

- **Installation Commander is responsible for any evacuation order**
- **Evacuation is not optional. When the order is given, it is a mandate.**
- **Whether to evacuate to a shelter or leave the area is an individual decision.**
- **Re-entry into area east of the intercoastal is restricted by the COJ**

TRANSPORTATION

This is an individual responsibility!

- **Limited transportation is available to Military Personnel and some dependants on base.**
- **You Must Be Personally Prepared!**
- **Community Transportation Services, via COJ, for qualified persons with specific " special needs" !**

Communication Is The Key

Getting the message out Via:

Telephone

Email

MWR info channel (CH. 15)

Message Traffic

Local News Channels

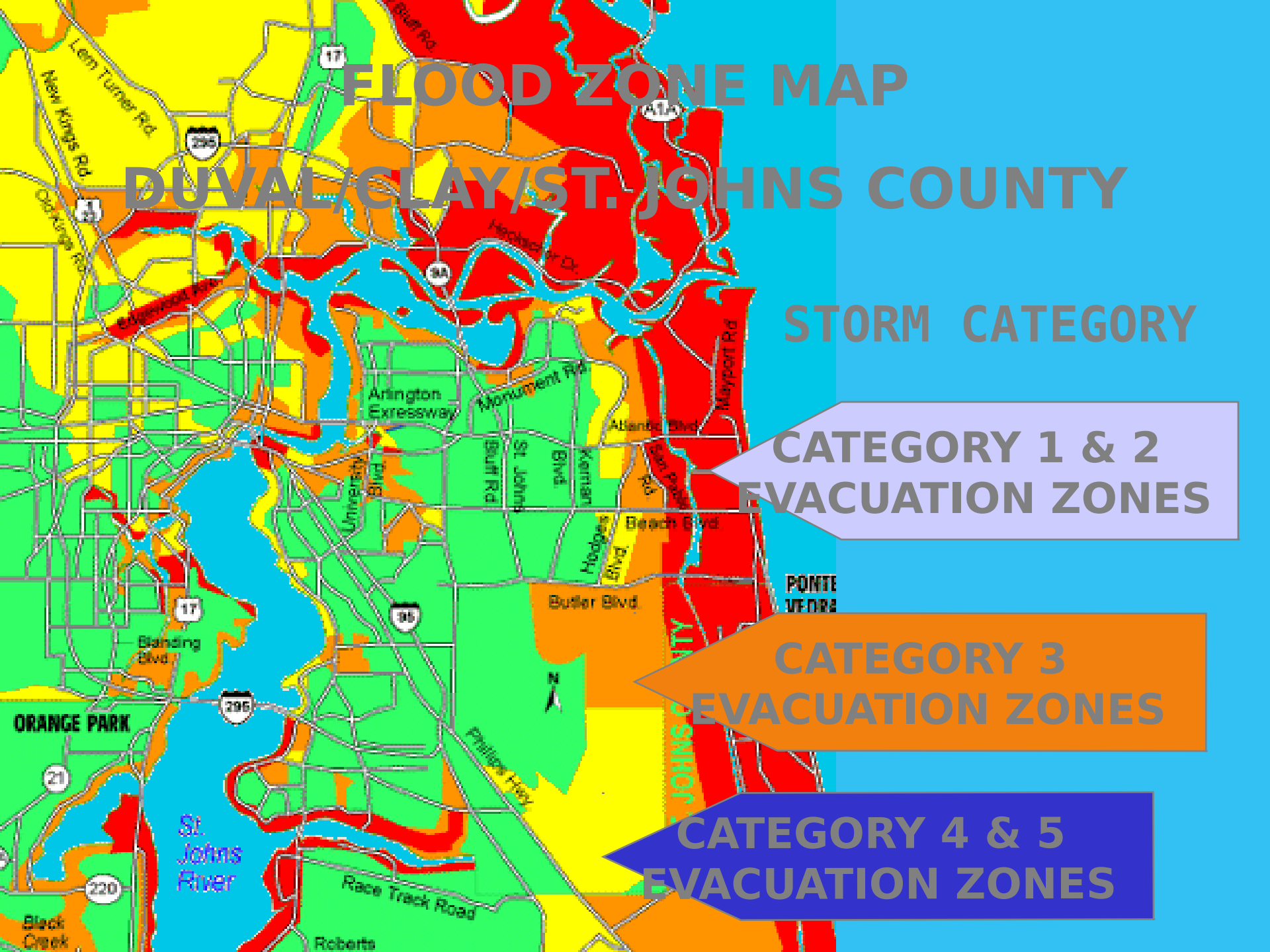
Radio

Education

Any/All other means

Hurricane Season Preparation

- Assemble a home emergency kit that includes non-perishable food, water and other supplies. (see brochure)
- Assemble a shelter kit including: medications, bedding, flashlight, clothing, and other personal items (see brochure)
- Know shelter locations and evacuation routes beforehand, keep fuel in your vehicle, do not become stranded!


FLOOD ZONE MAP
DUVAL/CLAY/ST. JOHNS COUNTY
STORM CATEGORY
CATEGORY 1 & 2
EVACUATION ZONES
CATEGORY 3
EVACUATION ZONES
CATEGORY 4 & 5
EVACUATION ZONES
Arlington Expressway
Monument Rd.
Atlantic Blvd.
Beach Blvd.
Butler Blvd.
Blanding Blvd.
ORANGE PARK
St. Johns River
Phillips Hwy.
Race Track Road
Roberts
Black Creek
Lem Turner Rd.
New Kings Rd.
Oakridge Rd.
Edgewood Ave.
Hecksher Dr.
Mayport Rd.
University Blvd.
St. Johns Bluff Rd.
Kernan Blvd.
Hodges Blvd.
San Pablo Rd.
N

Designated Shelters

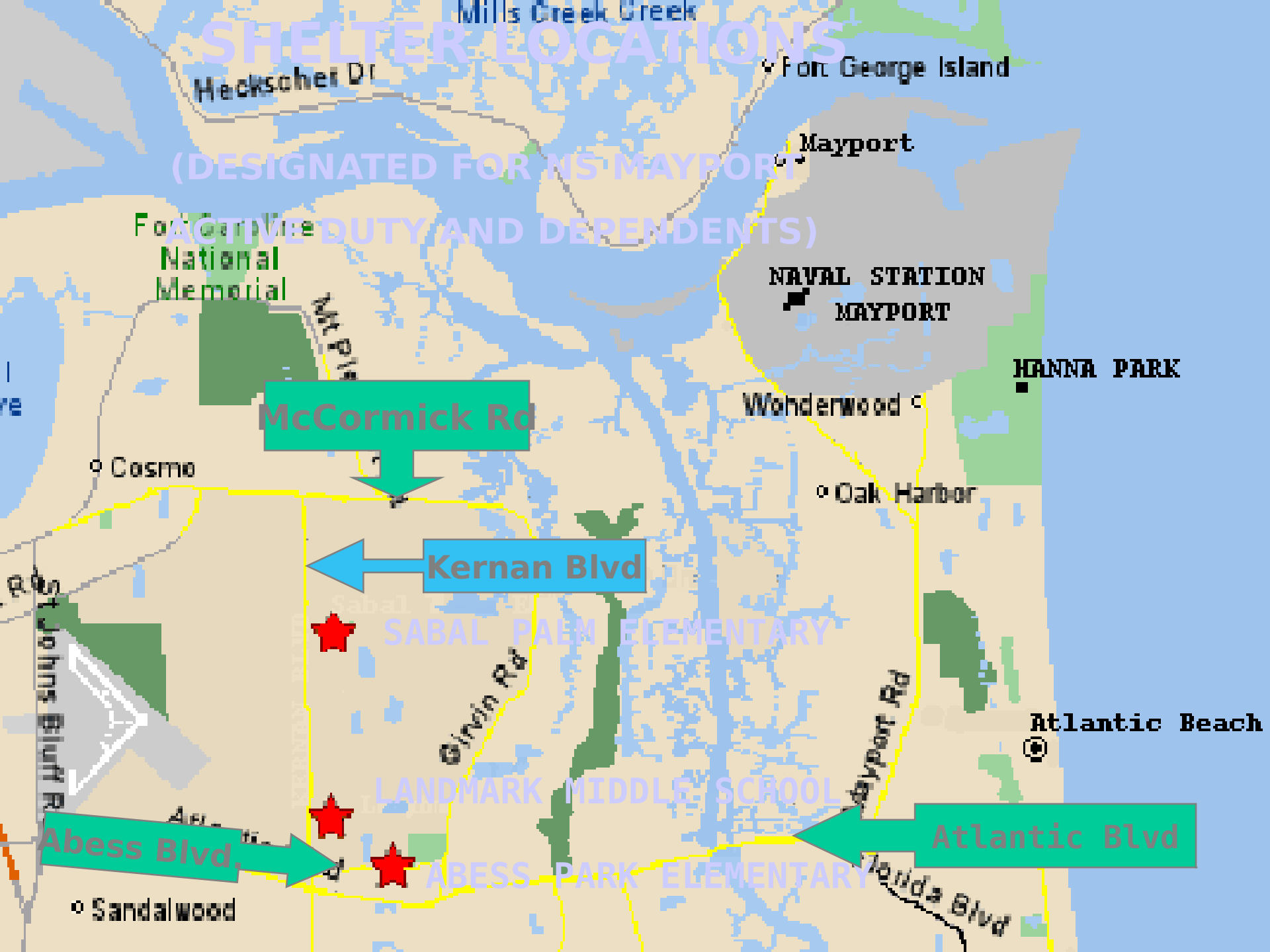
General Shelters:

Abess Park Elementary
Sabal Palm Elementary

Special needs Shelter:

*Landmark Middle School

**Registration with Duval Co. Emergency Preparedness Office at 630-2472 is required prior to hurricane season*


SHELTER LOCATIONS
(DESIGNATED FOR NS MAYPORT
ACTIVE DUTY AND DEPENDENTS)
Mills Creek Creek
Heckscher Dr
Fort George Island
Mayport
Fort Caroline
National
Memorial
NAVAL STATION
MAYPORT
HANNA PARK
Wonderwood
McCormick Rd
Cosmo
Oak Harbor
Kernan Blvd
SABAL PALM ELEMENTARY
Girvin Rd
Mayport Rd
Atlantic Beach
LANDMARK MIDDLE SCHOOL
Abess Blvd
Atlantic Blvd
ABESS PARK ELEMENTARY
Sandalwood
Jonida Blvd

Evacuation Shelters:

- Shelters are operated by the American Red Cross
and City of Jacksonville
- Naval Station Mayport provides additional certified shelter workers

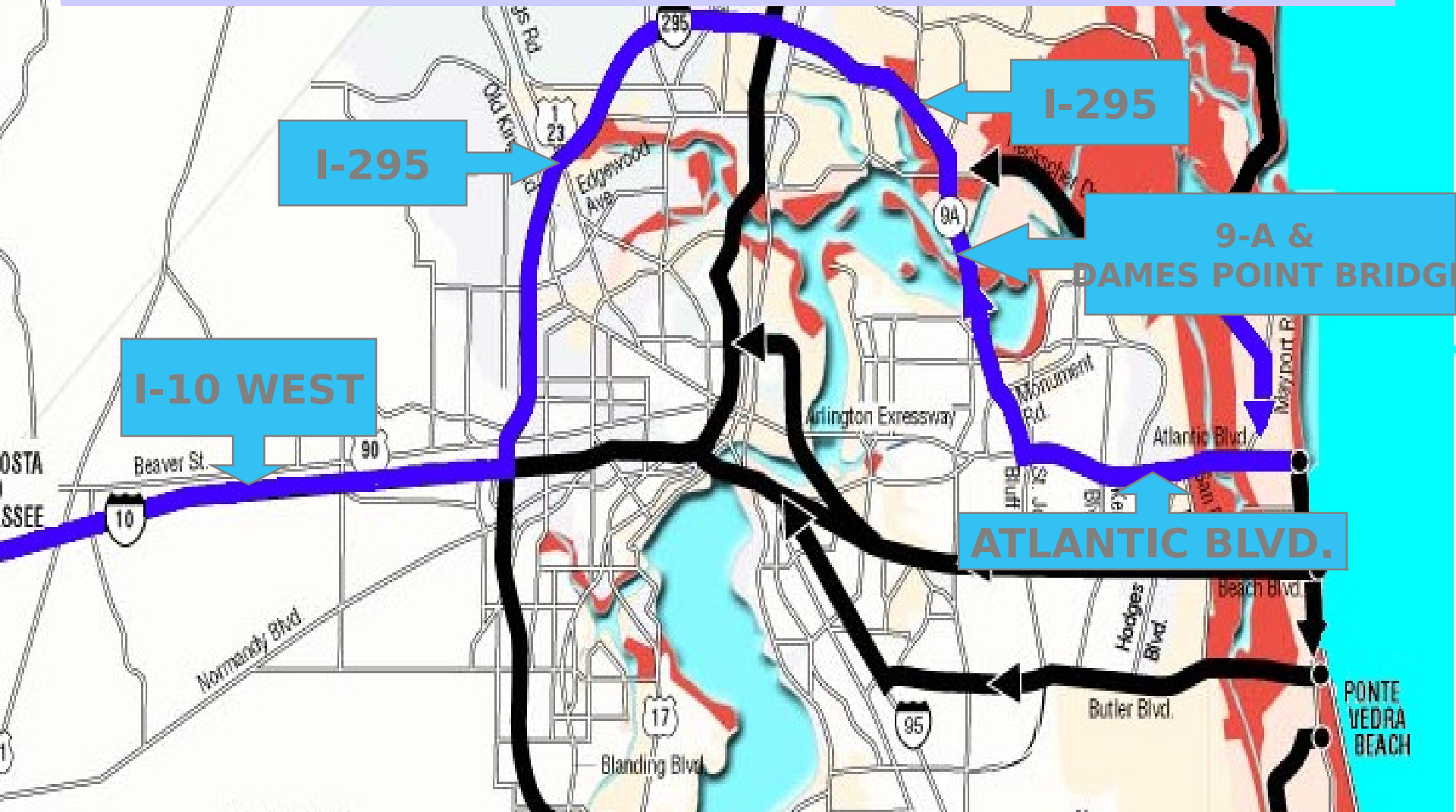
- Shelters provide safe haven from the Storm or Incident and the basic needs of the individual

- NO PETS ARE ALLOWED!

ATLANTIC BOULEVARD EVACUATION

- **Points North of Atlantic Boulevard:**

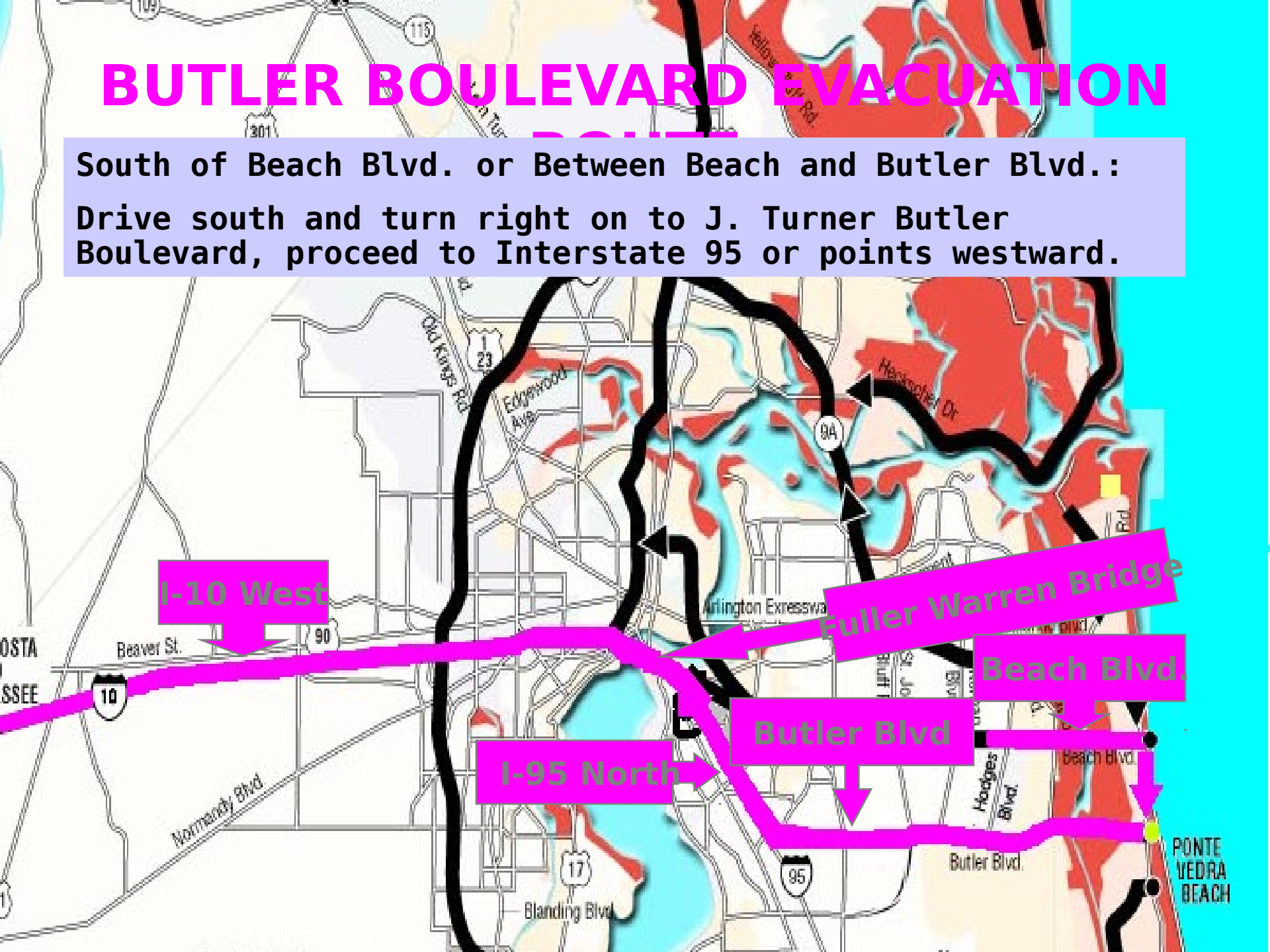
Drive south and turn right on to Atlantic Boulevard, proceed to State Route 9A across the Dames Point Bridge for access to I-295, I-95 North, US-1 North, and I-10 West.



BUTLER BOULEVARD EVACUATION ROUTE

South of Beach Blvd. or Between Beach and Butler Blvd.:

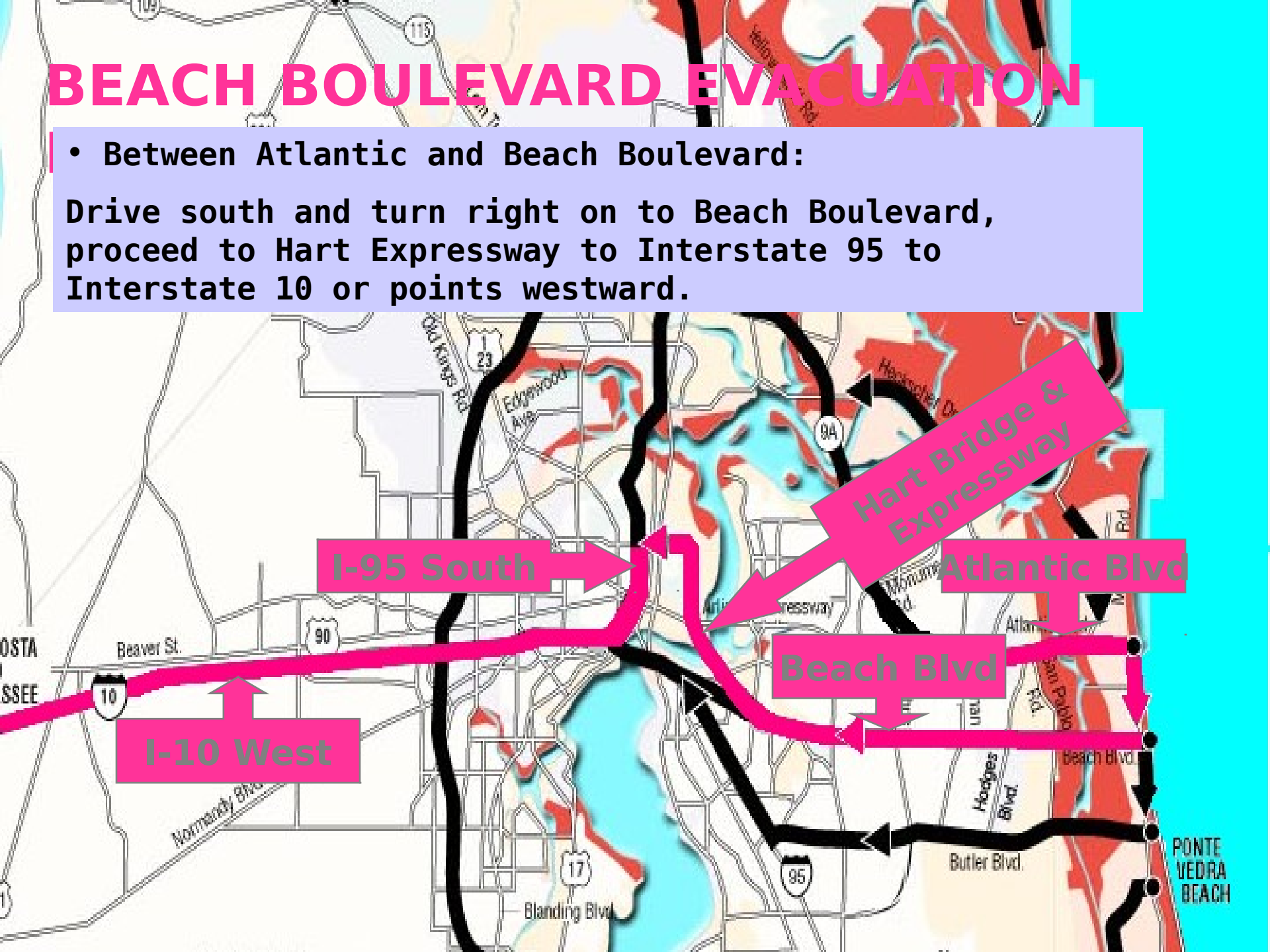
Drive south and turn right on to J. Turner Butler Boulevard, proceed to Interstate 95 or points westward.



BEACH BOULEVARD EVACUATION

- **Between Atlantic and Beach Boulevard:**

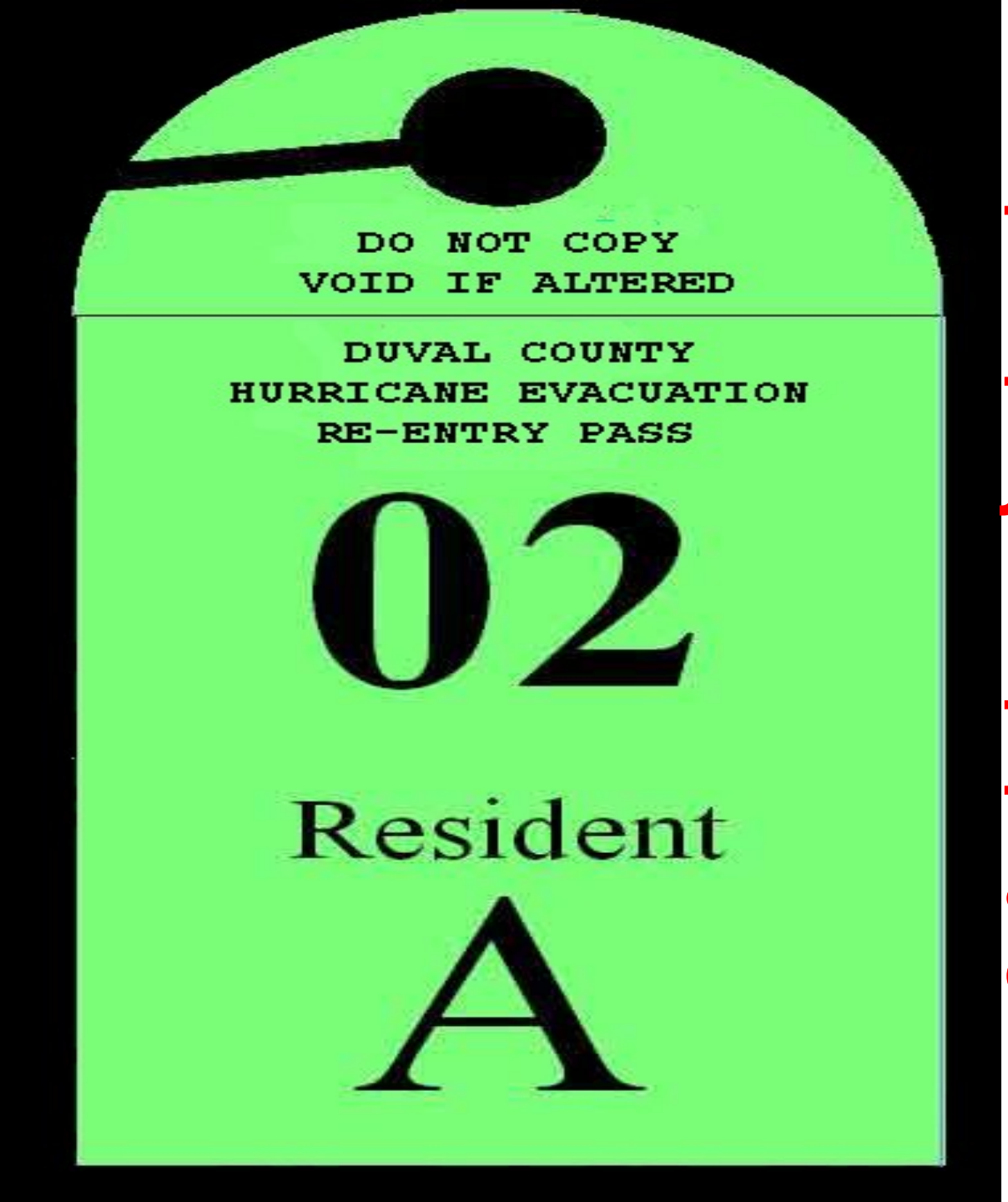
Drive south and turn right on to Beach Boulevard, proceed to Hart Expressway to Interstate 95 to Interstate 10 or points westward.



AFTER THE STORM

- Do not attempt to enter a disaster area unless it has been opened and you are an authorized resident or worker in the area.
- Visually inspect home for damage before entering, use extreme caution.
- If you reside in Navy Housing, they will advise you on what steps to take for re-entry.

You must have a *Re-Entry PASS* to cross the intercoastal bridges into beaches area.



- **Available through Base Housing or the City of Jacksonville**
- **MUST HAVE to return to the Beaches area after evacuation for Re-entry**

Where to Get More Information

Fire & Emergency Services NS Mayport
(Emergency Management Department)

WWW.COJ.net

WWW.myflorida.com

WWW.RedCross.org

WWW.Hurricanes.NOAA.gov

WWW.FEMA.gov